Video Game Design and Interactivity: The Semiotics of Multimedia in Instructional Design

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Abstract

Video Games and Interactivity: The Semiotics of Multimedia in Instructional Design

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This creation-as-research thesis examines the semiotics of multimedia and interactivity within the context of instruction, focusing on theoretical and practical representations in video game design, and the cultural models therein. This is further articulated through the planning, creation, development and delivery of a 15-week online post-secondary course entitled *Gaming, Interactive, and Multiplatform media*, a course that teaches video game design principles, while emulating those design principles as part of the instructional platform. The course is a manifestation of the findings in this thesis, which suggests that video games, through their innate interactivity via the inclusion of multimedia as part of their design, hold critical implementation frameworks for course-based instructional design, when multimedia is used as part of the instructional process.

Acknowledgements and Dedication

This thesis is dedicated to Naomi, Elena, and Celeste, the three women who entered my life throughout this PhD process, and have supported me throughout this journey. I dedicate this win to you: my beautiful Wife, and daughters. You helped push me through this simply by becoming my new family.

Oh yes… Mom, Dad, Dwight, & Khandi, the first family to teach me that I can do anything, because of how I was raised.

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Introduction

The research-creation theoretical framework that I will use emulates that of Owen Chapman & Kim Sawchuk's 2012 work, which uses a four pronged methodological approach to research creation, "research-for-creation, research-from-creation, creative presentations of research, and creation-as-research" (Chapman & Sawchuck, 2012). Further, the creation-as-research framework is a term that describes Canadian creative practices of this nature. The Social Sciences and Humanities Research Council of Canada (SSHRC) defines creation as research as:

> "An approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation. The creation process is situated within the research activity and produces critically informed work in a variety of media (art forms). Research-creation cannot be limited to the interpretation or analysis of a creator's work, conventional works of technological development, or work that focuses on the creation of curricula. The research-creation process and the resulting artistic work are judged according to SSHRC's established merit review criteria."
> (SSHRC, 2015)

The creation-as-research methodological approach, in my view, best fits this thesis as the planning, production, post-production, and testing processes of this project are an inseparable and integral part of the research and creation of the *Gaming, Interactive and Multi-Platform Media* course. Creating an intricate interactive experience is not a task easily articulated via text alone, for the procedures, thought processes, and the dissemination approaches designed by the artist, the creator, often align with the intended potential impact that the created artifact wishes to emulate. Sullivan, in 2015, suggests this as a 'theory of possibility' where the artifact that is created becomes the research statement. Further, the selection of the creation-as-research methodology for this thesis is an overt attempt to create artifacts as a means of enhancing the educational discourse through example. The completion of only written research artifacts "…has little chance of accounting for ends as complex as learning and teaching, let alone advance our knowledge of constructs such as imagination or visual cognition." (Sullivan, 2006). This is one

core reason why the creation-as-research methodology best fits my intended approach. I wish to suggest that the processes involved in media production, including interactive experiences via the video game medium, contain exportable methods of content distribution that are cross-disciplinary. I am not saying that video games teach better than teachers, but I am suggesting that the properties, cultural nuances, or, semiotics of what video games are as a medium is what instructional designers, multimedia instructional designers, and teachers who wish to incorporate multimedia as part of classroom instruction should be paying attention to. This is emulated through the works that have been created as part of this dissertation. I am a media producer by hobby, and profession. Working with various media production companies such as the National Film Board of Canada, and other educational institutions where I was specifically tasked with creating multimedia experiences with the sole purpose of engaging and educating students and teachers. Creating, or, creating possibility is part of the nature of the creation-as-research framework, in that it attempts to encapsulate the very statement it is trying to make both in creation and artifact as "[o]ftentimes what is known can limit the possibility of what is not and this requires a creative act to see things from a new view." (Sullivan, 2006). As this thesis calls on the creation of interactive works, there needed to be some kind of framework for how interactivity is defined within the context of the works, that is, a contextualization of the term within the context of creating experiences. This requires an additional component to be connected with the creation-as-research methodology.

Couched within the research-creation framework will be the interactivity model-based design approach from Russell Richard's 2006 work, where the development of interactive works, calls on its creators to develop materials containing three core modes of interactivity; *consumer*, *processor*, and *generator*. Here, interactivity is seen and developed through the aforementioned

core modes as a property, and an activity – where users are afforded opportunities for didactic consumption, bidirectional limited input via an interface, and the ability to freely create content within the context of an assigned activity (Richards, 2006). The semiotics perspective that I will use follows that of Swiss linguist Ferdinand de Saussure, who defines semiotics as the process of investigating the nature of signs, and the laws governing them (as cited in Saussure 1983, 15-16; Saussure 1974, 16). I will also detail how the semiotics of multimedia connect to the multifaceted needs of learners via cognition and learning theories. Further, I will detail how and where multimedia design is used and situated within classroom instructional design practices, by drawing on the academic literature from various fields of study including, but not limited to, education and communication studies. After contextualizing the fields of study, I will then point to workforce training environments that use simulation in instruction as a means of outlining the utility of matching technology with pedagogy. Finally, I will conclude by demonstrating through the research-creation framework and interactivity model that video games, by design, contain exemplar use cases for matching the semiotics of multimedia with instructional goals and learner needs, and that the affordance theories associated with the medium provide instructional designers a starting point for incorporating different aspects of multimedia in classroom settings.

I hope to highlight that, if multimedia instructional design can incorporate the semiotics and cultural models of video game design and interactivity as an integral part of course development, and not an afterthought, or an attempt to connect with trending technologies, only then will the design practices involving multimedia in instruction be portable to various disciplines. Further, the semiotics of multimedia should serve as a core template for vocational training curriculum, which will address Canada's pressing needs of creating a workforce for a knowledge economy surrounding multimedia in instruction.

Creation-as-research Components

This creation-as-research thesis contains 4 sections:

1.   This written document

2.   The Gaming, Interactive & Multiplatform Media course

3.   15 Module Summary Videos

4.   The creation-as-research dissertation presentation

Each of section of this creation-as-research dissertation will be described within the context of this multimedia experience.

This Written Document

This written document, the literature review and other theoretical underpinnings for the course include a wide array of research done up to and including the work included in the comprehensive examination part of this doctoral degree. It contains the traditional knowledge as it was learned within the context of the Educational Technology stream at Concordia University. Here, more traditional forms of theory exploration can be found. Substantiation of many of the theories described in this paper are made in the other three media produced artifacts included as part of this thesis.

The Gaming, Interactive, and Multiplatform Media Course

The Gaming, Interactive and Multi-Platform Media, is a 15-week online post-secondary course in video game design, which explores the semiotics of multimedia in instructional design within the context of video games. Specifically, this component of the creation-as-research thesis will highlight the semiotics of multimedia in instructional design through the creation of an

interactive course that embodies the cultural nuances of media production and video game design disciplines, highlighting those nuances in the development process, and as part of the educational content. The contribution to the creation-as-research framework, here, comes from the development and dissemination methods used in this dissertation, which are expressed explicitly in the analysis section of this paper. The true nature of the semiotics of this section cannot be easily ascertained simply by reading this paper, the nuances must be experienced module-by-module via the course. This is of particular significance from an exportability standpoint, where one who is foreign to video game play, design, and development may run the risk of becoming disconnected from the utility that this section seeks to make portable to educational and other discourses. This section cannot be known without simulation of the theories via the actual engagement with the online course in video game design. This section includes all of the different layers of multimedia, the semiotics of multimedia, interactivity, and simulation theories described in this paper. From the creation-as-research standpoint, this is the most theory rich portion of this thesis. It is important to note that this section did not include a simple typing up of a course syllabus and assignments – it involved the creation of a multimedia experience, one that is congruent with the goals and objectives detailed in the appendix section of this document, in addition to production of some elements of the course as part of engaging participants with the theories and content necessary for successful navigation and completion of the course. Each element that is experienced in the course is not afterthought, the nature of how the technology connects with learners is part of the intent of the experience designer, which, in this case is myself. One close look at the 'character' voice used as the instructor of the course should give an engaging party an example of what is being expressed textually here. The course reads as a script – I am speaking directly to the student, and not simply writing down instructions for objectives.

15 Module Summary Videos

This section includes summative videos for the aforementioned course in video game design. The videos were created with the intention of informing potential participants, without experience spoilers, with enough information to understand what the course in video game design entails, that is, all of the different affordances that each module has to offer. This section also touches on some of the details necessary for a potential instructor, other than myself, to know what they may be responsible for as an instructor, without spoiling potential engaging elements that are found in the course itself. It is important to note that, these videos are intended to compliment the course before being experienced by the participant – they were not designed to be watched as a means of navigating the course. The course should be navigated through.

The Creation-as-research Dissertation Presentation

This section includes a step-by-step contextualization of all of the artifacts created as part of the creation-as-research dissertation. Here, the course is completely opened up and analyzed within the context of the presentation methods, course affordances, and intended instructor outcomes. A video version of this dissertation may be made publicly available – which will open the dissertation up to critical review from the public, as well as instruction and design communities. This presentation must first be edited as a means of further contextualizing the semiotics of multimedia within the context of an online video. Some of the core features of this presentation are the way that effects, transitions, and on-screen prompts are used as part of the engaging experience. However, one core portion of this presentation is missing from the attached

video, and that is the performative aspect of this presentation. As I have a close affinity with teaching and instruction, there were methods used to engage that I crafted as part of the experience. One example could be detailed via Herbert Zettl's 1998 four-level media literacy model:

Contextual Aesthetic Fields (Zettl, 1998)

Some of the ways that this presentation engaged participants via context were in the structure of the presentation, in addition to the colours used. The structure was organized by first contextualizing the creation-as-research components, to help establish the utility of the methodological framework. Second, the semiotics of multimedia were discussed as a means of engaging participants with the perspectives that were used throughout each facet of the multimedia experiences created as part of the thesis. Finally, a true 'theory of possibility' (Sullivan, 2006) was performed via instruction, where I taught all of the theories involved in the Gaming, Interactive, and Multiplatform Media Course within the context of the course, using live examples from the games that are involved in the simulation segments of the course. Here, a clearer picture of instructor intention was displayed, as each module was theoretically supported by each of the different literature references found in the literature review section of the document.

Aesthetic and Associative Contexts (Zettl, 1998)

The presentation included a dictated narrative, which included information from my own past as a multimedia instructional designer, a hobbyist and professional media producer, a video game designer, and video game player. These were further contextualized via the overall aesthetic of the presentation. One example would be in the historical significance of the theoretical underpinnings of each module, where every module taking place in the present time

was in full colour, while theoretical underpinnings were placed on slides in black and white, with film grain running in the background of each item. This was done intentionally as a means of acknowledging the foundations of the course from the perspective of readings and academics from classic academic literature. Further, the aesthetic and associative contexts were further expressed via icons, where the image of a two chain links connecting flashed at the bottom of each theoretical underpinning indicating a direct link between the theory used in the slide and the way that the course was designed.

Cognitive and Affective Mental Maps (Zettl, 1998)

Each section of the dissertation presentation had on-screen visual headers, which would indicate to participants where the presentation was within the context of the three sections of the presentation: Creation-as-research: Components, The Semiotics of Multimedia, & Instruction via the Gaming, Interactive & Multiplatform Media Course. These headers were simplified into the following sections respectively: Components, Multimedia, & Instruction. It was difficult for participants engaging with the presentation to become 'lost' within the context of presentation progression because each section was clearly labeled, and my intention was to create the presentation so that any latecomer could enter the room and have an idea what was being discussed at that moment in time. The way that the presentation navigated was with a rhythm, moving from top-to-bottom, and left to right – showing the section header, explaining the on-screen bullet point, give a story, and explain within the context of the literature – this is how the presentation was delivered.

Acknowledging the four areas involved in this creation-as-research thesis is a critical component of understanding how the different components connect within the context of one cohesive experience. The nuances and intentions of each section must be connected with in a

way that is congruent with my intentions as a multimedia experience designer. The educational theories that underpin the four areas of this thesis are a critical part of how the experience was designed, and next will be a detailing some of the literature that articulates some of the design decisions made as part of this creation-as-research thesis.

Literature Review

One core issue facing multimedia instruction is the lack of unity and cohesion in descriptions surrounding the implementation of multimedia in instructional design and, as consequence, studies involving multimedia in instruction either suggest that multimedia in instruction yields favorable results (Neo & Neo, 2009), unfavorable results (Moreno & Mayer, 2000), or suggest that it is an important part of instruction while neither confirming or denying the significance of multimedia in instruction (Brünken, Plass, & Leutner, 2003). In the studies that yield both positive and negative results, little attention is given to the specifics of the processes surrounding content dissemination using multimedia. For example, the 'why' certain production-based decisions are made for multimedia in instruction, particularly where learning is involved, is missing as part of the conversation surrounding the utility of multimedia in instruction. Further, some studies mask the specifics of classroom implementation decisions behind the term 'multimedia', a term that is increasingly gaining support by academic literature as affecting the strength of educational content (Collins & Halverson, 2009). However, in many cases, using the term 'multimedia' is one root of the lack of unity and cohesion (Gibson & Jacobson, 2014), as the use of the word without explicit detailing, or unpacking, has the potential to cover up the nuances of what might actually be affecting learning – the properties of multimedia, and not the platforms on which they are produced. This, in my view, harms the potential for progression in all disciplines, as the specifics of how the nuances of the components of multimedia are used aren't explicitly detailed, therefore hiding the successes or failures behind dissemination technologies, which are ever-changing, rather than the properties of that dissemination, which are not – that many humans, hear, see, smell and feel. This assertion is validated by research that neither confirms nor denies the potency of multimedia in instruction,

though highlighting the utility of its presence. Therefore, the defining of the specific nuances of 'multimedia' is critical in opening the discussion surrounding multimedia in instruction. This research-creation thesis seeks to highlight varying approaches to multimedia incorporation in instruction, highlighting it in the pedagogical content, and displaying it in the online work itself.

Defining "Multimedia" – The Semiotics of the Term

There is an ever-evolving vocabulary, in the English language, when using words that are linked to media production, computers, and technology. The use of the word 'write', for example, means different things depending on the context of the conversation, the consumer of message, among other factors. When someone suggests that they 'write their own blog', the specifics of what is meant are missing, forcing the consumer to make assumptions about what is truly meant. In the example of the blog, if the specifics of the 'writing' are not detailed, it is difficult to ascertain whether or not the writer is writing a physical draft of a blog on paper, before posting it to the digital version of that same blog, or typing out their content online at the same time. With the evolution of technology, comes the evolution of the language surrounding that technology. This evolution can lead to convolution regarding the specifics of a term. A term like "technology" for example, has seen so many different contextual definitions that it is difficult to know what one means when using that term. A pencil is a piece of technology, in the same way that a computer is, given that both contain different uses as a tool, and as writing tools. Semiotics involve a theoretical approach to teasing out the nuances of terms that asks its users to do three things when defining terms: 1) Give historical context to semiotic resources; 2) detail how these resources are used in different contexts; and 3) contribute to new semiotic resources (Leeuwen, 2005). Further, Chandler outlines that the practice of semiotics is not common in

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academia, suggesting that "…[i]t is a field of study involving many different theoretical stances and methodological tools." (Chandler, 2007). I will now attempt to apply semiotics to the term 'multimedia'.

With the advent of the Internet as a tool, and words transforming globally, the semiotics of what is meant by words, or terms used in any discipline are constantly dependent on who is using those terms, and highly dependent on contextual uses. Kress mentions that semiotics can be used as a method of enquiry, inviting questions involving the terms themselves – there is no concrete solution to defining terms, but some effort should be made to invite clarity to terminology in context (Kress & Leeuwen, 2002). Thus, it behooves educators, particularly those who create multimedia instruction for learner consumption, to understand the semiotics of 'multimedia' as the specific details within the term do, in fact, invite clarity by attributing specific utility to the various parts that make up the term.

Defining the term 'multimedia' and the components of that term may help advance the discourse of instructional design. When using the term discourse here I am referring to the conversation surrounding the term 'multimedia', as it is described in the field of media production. In that regard, my approach to unpacking 'multimedia' follows the theory of situated meaning, which discusses terms and concepts as they are known to a person within a particular context or field (as cited in Agar, 1994; Barsalou, 1991,1992; A. Clark, 1993; H. H. Clark, 1996; Gee, 1996; Gumperz, 1982a; Hofstadter, 1997; Kress, 1985; Levinson, 1983; Wittgenstein, 1953). Gee and others have referred to this process of considering contextual cultures as situated knowledge, that the distribution of knowledge surrounding terms should mimic that of the intentions of the culture from which the practices are imported (Gee & Green, 1998). The context of the conversation in this paper is multimedia production within the context

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instructional design, also known as multimedia instruction.

Unpacking "multimedia" – Semiotics, Utterance-type & Utterance-form

      Semiotics. Semiotics, according to Kress, involves the unpacking of terms in order to establish a foundation for discussion, as a way of making meaning of terms. To Kress, meaning-making involves the unpacking of terms, based on the perspectives of a particular group (Kress, 2011). The significance of meaning-making has been covered in education studies to ensure that language as a discourse contains terminology that is useful across studies (as cited in Halliday, 1978, p. 2), as individual parties, often educators, seek to enhance a field or discipline through their involvement with that discourse – that each writer hopes to effect some type of social change through the externalization of thought (Morgan, 2006; Wright & Forrest, 2007). These considerations related to situated knowledge and discursive frameworks also apply to language in multiple modes or terms as they connect with ever-evolving technological forms of multimedia. When unpacking the meaning of a term like 'multimedia', for example, there are different versions of what is meant, as the way that this term applies can vary based on discipline, "… its meaning refers us to socially established and maintained convention, and either to adherence or deviation from that." (Kress & Leeuwen, 2002). This adherence or deviation is critical in the discussion of defining terms, particularly in a media production world where graphical user interfaces and 'plug n' play' philosophies are making media production easier to execute and, as a result, some of the execution conventions from the professional practice, particularly ones that are commonly considered critical to engaging audiences, are not necessarily being exported from the socio-technical regimes from into the instructional design cultures. To clarify a socio-technical regime refers to the institutions, techniques and artifacts,

but also the rules, practices and networks that dictate the norms of production technology use (Rip & Kemp, 1998). The professional conventions of creating experiences are of particular importance because of the terminologies and cultural codes embedded within those modes of thinking. Further, these details have significance to educators as professionals, because "[i]n professional usage, there is an overlapping set of meanings around the idea of codification…" (Kress & Leeuwen, 2002).

These codes, in my view, are an embodiment of the cultural models that Gee & Green describe; the practices, hidden affordances, and implementations that media production studies teach. Here, the socio-technical regimes, or, cultural models of media production contain hidden meanings (as cited in Cole, 1996; D'Andrade & Strauss, 1992; Geertz, 1983; Holland & Quinn, 1987; Spradley, 1980) that arguably hold the key to content creation, as it pertains to connecting content with pedagogical intent. Understanding the cultures imbedded within the specifics of the term 'multimedia' is critical, as it is the unpacking of the term where the components of engagement, audience retention, are detailed, and, most importantly, made portable to other disciplines (Gee & Green, 1998). What follows are two types of meaning-making of terminologies which, I argue, hold the core significance regarding the ways in which terms can be dissected for the purposes of the aforementioned portability – utterance-type meaning, and utterance-form meaning.

Utterance-type Meaning. Typical in research studies involving multimedia is the description of one mode of thinking presented by Levinson, where the term 'multimedia' is based on its utterance-type meaning, or, the general use of the term. In the context of utterance-type meanings, many research studies use 'multimedia' to refer to a multitude of media, including, but not limited to, sound, pictures, video, and text. The pragmatics of the word

'multimedia' is the focal point of this argument as the "… inferred meaning is usually closely associated with context-dependence and with maxims or principles which are geared to the recovery of the [] intended meaning." (Levinson, 2000). In this regard, it would appear that, generally, the utterance-type definition of the word 'multimedia' is the perspective that many research studies use, as the properties of multimedia are too often ill defined. These utterance-type instances of the meaning of 'multimedia' don't necessarily advance the overall knowledge economy of the term, as it uses it in a more general context, affording limited agency to the term outside of the research study in question. How these elements are ill defined, preserving the utterance-type meaning across studies tends to vary but, generally, the definitions detail the surface-level, or universal properties of the term.

Utterance-type examples: multimedia. In the following table, I present some examples of utterance-type meanings used in academic literature to describe 'multimedia' in learning contexts. Some examples, including the associated field or discipline of study follow:

Table 1

Utterance-type examples from academic literature

Terms Used	Field or Discipline	Author(s) and Year
Sound effects, background music, auditorily presented narration	Science	Moreno & Mayer, 2000
Pictures (such as animation) and words (such as narration)	Science	Meyer & Moreno, 2002
Words and pictures	Science	Meyer & Moreno, 1998
Words and graphics	Science	Moreno & Mayer, 1999, Mayer, 2000
Pictoral material (e.g., pictures, graphics, or maps)	Education	Brünken, Plass, & Leutner, 2003
Text documents, graphics, sound, video and animation	Education	Neo & Neo, 2009

resources		
Animations that display dynamic pictures	Psychology & Education	Rasch & Schnotz, 2009
Video-based e-lecture with synchronized written transcript of oral presentation	Business Administration & Economics	Jadin, Gruber, & Batinic, 2009
(written and spoken) words with (static and dynamic) pictures	Education	Reimann, 2003
Information and Communication Technologies	Education	Conole & Dyke 2004
illustrative examples, online assessment with feedback	Communication Studies	Cairncross & Mannion, 2001

It is important to note that, in all of the above cases, the reference to 'multimedia' was in the context of instruction. Glancing at the words themselves, they appear to be signifiers, and not necessarily specific in nature enough to ascertain the properties of the elements in question, particularly with regard to the cultural nuances involved in the processes behind the placement of items within that space. The terms in Figure 1 have not been detailed in a way that extends into Gee's definition of cultural models, information that rests between form and function, where each context has different meaning – the difference between the signifier, and the significant application nuances. To expand, I am suggesting that the utterance-type meanings of terms is permeating media production models in a detrimental way for educators, who may have similar objectives of engagement to entertainers, despite how technology is blurring those cultural models. Further, I argue that these models are being blurred as a direct result of technological advancements in mainstream consumer media production tools, where the nuances of production are being masked by ease-of-use technologies, which tend to package media production cultural models as 'add-ons', effectively nullifying the nuanced affordances, overwhelmingly cultural, of

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multimedia production – the blurring of the lines between the public professional practice, and private or personal practice (as cited in Haddon and Silverstone, 2000). This postulation is substantiated through socio-technical design theory, which also sees production technologies and social aspects a fused part of the design process (Cummings, 1978). Some of the relevant, yet subtle, examples of this would be computer software inclusions of video add-ons that allow for *blurs, zooms*, and *effect filters*. Missing from the simple click and usage of the three aforementioned conventions is an understanding of the cultural models behind these add-ons, which include *depth of field*, *lens aperture*, and *vintage filmstrip gradients* – three areas that culturally connect to the aforementioned add-ons – these are examples of the media production system deep structure (Geels, 2011). Understanding the nature of the cultural models, would better inform the use of the add-ons, effectively giving historical context; detailing how these add-ons are used in different contexts; and therefore contribute to new context specific semiotic resources (Leeuwen, 2005). This is where the strength of the second mode of thinking by Levinson, the utterance-form, is realized.

Utterance-form meaning. With the utterance-form of terms, the actual meanings, or nuances of terms are described (Levinson, 2000). It is here where the unpacking of terms can be extensively analyzed and articulated. Further, cultural models of term specifics, here, are more easily exportable to other disciplines, as the properties outlined mimic that of the culture from the standpoint of intention. The utterance-form version of the term 'multimedia' arguably contains the most information pertinent to engaging learners, because of how well the different nuances of that term cater to learning. Whereas the former, utterance-type approach to 'multimedia' preserves a surface-level embodiment of a multitude of instances, the utterance-form requests that terms are contextually defined in ways that the properties of terms are better

articulated, with the nuances of terms being specified as succinctly as possible, embodying the cultures of the intended meanings of the terms. Unpacking terms in this way can help the multimedia instructional design discourse as unpacking "… it provides the means to reflect on and critique the quality of learning that takes place in terms of situated knowledge; and it provides the tools to analyze the ways social and cultural meanings about […] teachers and learners, and their relationship." (Wright & Forrest, 2007). I will attempt to unpack the introductory nuances of the term multimedia. Keep in mind, that the cultural models of the term, as it connects with the discipline specifically, are much more detailed than will be described below. The articulation below is a general introduction based on what appeared to be missing from many studies in education involving multimedia in instruction.

Utterance-form examples: Audio & the Three Layers. The utterance-form of 'sound', or 'audio' is actually multi-tiered. Technically, the layer of audio refers to sound and its presence in multimedia. Sound, "the successive compression and rarefaction of air…" (Kress, 2011), is a critical component of the media production process and, increasingly, it is becoming as critical in multimedia instructional design as it has become in the field of media production. The specific nature of audio varies depending on genre, but for the purposes of this paper these will be distilled into the three categories, or, layers typically used in media production education: Sound Effects, Music, and Dialogue. Each of these layers embody affordances, part of the consumption process, that are better expressed in very specific ways. These affordances are detailed below:

  Layer 1: sound effects. Present in every aspect of the lives of humans with the ability to hear, the sound effects layer refers to ambient sounds, and elements of sound that are attributed to worldly elements. Here, one cultural model, or, affordance of sound effects

is presence, that is, this layer of audio best allows the listener to feel as though they are in a particular setting. For example, void of picture, this layer of sound would do the best job of allowing a listener to know that a scene takes place in, say, a bowling alley. Here, sound effects would include several items, including some detailed below:

Table 2

Utterance-form examples of sound effects: Bowling Alley

Sound Effect Name	Cultural Model – Scene Presence
Bowling Ball	Rolling sound
Bowling Pins	"Knocked" (falling) over
Shoes	Walking up alley (approach to bowl)
Crowd ambience	Background to listener (physical space)
Friends cheering	Close to listener (group dynamic)
Friends disappointment	Close to listener (group dynamic)

Notice that, in Table 2, each utterance-form of the sound effect layer, are specific to the scene which, given the above information, is telling a specific structure of a story. To highlight the strength of the sound effect utterance-form, note that it is difficult with this layer, to sonically highlight what colour shirt someone in this scene is wearing, or convey emotion rhythmically – this is one core cultural model of the sound effect layer, a component within the utterance-type: sound. Meyer et al. attempted to see the relevance of this layer in instruction, along with imagery when testing to see if learning gains were higher when "…examin[ing] the learning consequences of adding a sequential or simultaneous animation and environmental sounds to the

explanation." (Moreno & Mayer, 2002).

   Utility of sound effects: arousal and coherence theories. One way to better understand the utility of sound effects would be to think of any animated movie, with the understanding that all elements are specifically selected to give a sense of spacial awareness – as outlined in Figure 2. The way that the listener is engaged is directly connected to a consumer's sense of space and presence, congruent with the arousal and coherence theories explored by Mayer and others. This theory suggests that, the learning potential is higher when the learner is aroused by sounds "…including sound effects…" (Moreno & Mayer, 2000), that prompt a heightened sense of adhesion to the learning materials. Conversely, when sound effects are used as "bells & whistles" (Mayer, 2002), they run the risk of adhering to coherence theory, where materials detract users away from pedagogy. Coherence theory, in my view, is one core element that goes hand-in-hand with 'plug n' play' media production technologies as, the focus is usually on the flashy nature of multimedia in instruction, rather than the calculated dissemination of learning materials via those technologies. One area where the use of sound effects within the context of consumption have been well analyzed and documented is in the field of traditional television, where positive results of heightened attention in children were seen as prevalent (as cited in Alwitt, Anderson, Lorch, & Levin, 1980; Anderson & Levin, 1976; Calvert & Gersh, 1987; Calvert, Huston, Watkins, & Wright, 1982; Calvert & Scott, 1989). Interestingly, in some studies, where the utterance-type meaning of the word 'multimedia' was used, a lot of the multimedia content used was didactic in nature, unidirectional instances of multimedia learning materials (Mayer 1997, 1999, 2002, 2003, 2005; Neo & Neo 2009; Reimann 2003; Rasch & Schnotz 2009; Moreno & Mayer 1999, 2000, 2002; Mayer & Moreno 1998, 2002; Johnson & Mayer 2009; Jaden & Gruber 2009) which were also void of the sound effect layer as previously outlined. This adds to the aforementioned

section regarding the semiotics of terms but, also, adds to my argument which suggests that many multimedia instructional designers, not understanding the nuances of the terminology within the word 'multimedia' are not using the semiotics within the culture in the ways that they can be effectively used. To elaborate, if one doesn't understand the significance of sound effects as they pertain to engagement, arousal or coherence theories, then the risks of attention loss and coherence theory are heightened.

Layer 2: music layer. Music is a common element in many multimedia experiences, particularly those that exist in an online space. In this paper, the music layer refers to melodic and or rhythmical elements found in a multimedia mix. Here, one cultural model, or core affordance of music is emotion, that is, the music layer of audio best represents and affects the emotions of the user as a result of the rhythmic variations, which can more closely simulate the human heartbeat. The difference in musical genres, positions of elements in a mix, and even the pace and tone of a piece can absolutely have an effect on how the content associated with the music is consumed. A stark difference would be recognized in the fast-paced, often rugged nature of heavy metal music, verses that of a classically orchestrated piece. Moreno and Meyer have previously explored music's relevance in education, describing that "[o]rchestration, musical or other, cannot proceed if the sound and the potentials of the instruments are not known; if they are not used to best effect in the composition; or placed to best effect in the orchestra as a whole. The 'whole' rests on and benefits from that understanding of the differential function of the parts." (Kress, 2011). Generally, in education and communication studies, this layer of sound is overlooked

Utility of music: multimodality and phonological capacity. The thinking surrounding sound in multimedia instruction is that there are two channels, modes, modalities, or

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phonological capacities that humans are afforded: one for audio, and one for video (as cited in Baddeley, 1986; Baddeley & Logie, 1999). The suggestion is that there is a finite limit to each modality, which can be overloaded, depending on the mix of the three layers of sound, or video. It is important to note that no study makes concrete suggestions regarding what that balance between the three layers of sound is before the content receiver is overloaded, as the combination of the layers of sound will vary between contexts. One way to better understand the effectiveness of music would be to imagine the feeling that a particular song can give, regardless of whether or not there are pictures present. One additional affordance and effect of music is also the absence of music, particularly after music is initially introduced. This was shown in the 2000 Moreno and Mayer study, when "[a]dding a sufficient amount of extraneous auditory material—in the [] form of music—tended to hurt students' retention of the information in the narration." (Moreno & Mayer, 2000). Further, educational studies outside of the music and music theory disciplines, rarely detail the specifics regarding the nature of the music used in instruction, which, can lead one to believe that these elements are simply afterthought, placed there to add unnecessary polish to multimedia projects.

 Layer 3: dialogue. Widely used in modern media production, and increasingly considered where instruction via multimedia is concerned, the dialogue layer refers to voice, or aurally depicted language. Here, one core affordance of dialogue is description, that is, this layer of audio best describes particular details to the listener so that comprehension is detailed in the most specific manner. It is this layer that many studies in academia are actually referring to, when unpacking the way that this component of multimedia is used. The literature is ripe with references to the importance of narration in multimedia instructional design (Mayer 1997, 1999, 2002, 2003, 2005; Neo & Neo 2009; Reimann 2003; Rasch & Schnotz 2009; Moreno & Mayer

1999, 2000, 2002; Mayer & Moreno 1998, 2002; Johnson & Mayer 2009; Jaden & Gruber 2009), and there is good reason for this. It is arguable that this layer is the most important layer of audio, especially when audio is used in multimedia instructional design.

Utility of dialogue. There are many reasons for this assumption, including how it connects with the auditory sensory modality (Brünken, Plass, & Leutner, 2003), For example, the Canadian Radio-television & Telecommunications Commission (CRTC) has mandated that, as of September 1st 2009, all Canadian programming employ a specific dialogue layer, via a separate audio track from the merged audio track in the final version of the production itself, called described video (DV), in media production to be aired in Canada. The way that the CRTC outlines the importance of the dialogue in multimedia content is quite specific, though portable to the nature of learner engagement where the layer of dialogue is concerned. This is the nature of the mandate - that visuals, both static and moving, are explicitly narrated as a means of detailing the most pertinent aspects of the picture, describing the relevant imagery, using a separate audio track (Canadian Radio-television and Telecommunications Commission, 2000). In multimedia instructional design, the utility of this layer seems to be a core point of focus when sound is used in studies (Reimann, 2003), though the need for a detailed breakdown of just how the narration included in instruction was used is often missing. Regardless, the words used to describe this layer across the studies were more congruent than the other two layers, suggesting that the cultural model of this layer of sound is more cross-disciplined between media production and scholastic environments. The terms used in some studies included 'speech' (Jadin & Gruber, 2009; Mayer 1997, 1999, 2003, 2005; Moreno & Mayer 1999), 'voice' (Kumar & Leeman, 2013; Waddington, 2013), and 'narration' (Brunken et al, 2003; Johnson & Mayer, 2009; Mayer

& Moreno 1998, 2002; Mayer 1997, 1999, 2003, 2005; Moreno & Mayer 1999, 2000, 2002), but again, the specifics of these terms rarely stemmed beyond the physical manifestation of the text.

Layer 4: video. Video, the second aspect of multimedia instructional design, is arguably the area that is given the most attention, alongside text, in multimedia instructional design. Video here refers to the visual, non-text-based sections of an image found on-screen. It includes, but is not limited to, main content, and production elements. It is important to note that there are far more elements within this video layer, many of which are tied to cultural conventions, such as fades, jump-cuts, safe-areas, and lower thirds, to name a few. Void of the aforementioned video conventions, it is common, in instruction containing video, to use imagery of examples, as "[e]xample-based learning is an effective instructional strategy that has been studied from different perspectives..." (Hoogerheide, Loyens, & Gog, 2014), with this in mind, the particular details of instruction, or the nature of the instruction should be carefully calculated, as, extraneous data may not be beneficial to the learning or consumption process. The research in the significance of video in instruction is gaining more ground recently, as video-oculography, the ability to analyze eye tracking, is finding that users are moderating their own cognitive load by looking away from distracting elements to better connect with pertinent ones (Antonietti, Colombo, & Di Nuzzo, 2015). This will have some incredible impact on the utility of video in education in general, as it is now possible to see specific points at which learners become disengaged, and whether or not they pay attention to aspects of the video that the creator intends.

Layer 5: text. Text elements, in multimedia instructional design, are arguably as critical a component in the three layers of multimedia as the dialogue audio component, as it is the layer that can detail the most description for the consumer. Text, allows the user to detail additional information not readily apparent in the video layer. Used effectively, the text represents a third

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layer of language that can help to fill in the nuances of what cannot be ascertained by video alone. For example, the speed of a car zooming by a screen – one could not tell exactly how fast the car was going through the imagery of the vehicle alone. In this scenario, text would be used to explain additional details, as it could include on-screen text (Meyer & Moreno, 2002), giving the specific details of how many Kilometers per hour the car was travelling. Though the descriptions of cultural models of multimedia in this section should be considered surface level, the information should be portable to various disciplines. To that end, the term multimedia has different meanings depending on the physical manifestation of the instruction containing multimedia – and there have been attempts to suggest rules, or, laws surrounding the thinking of incorporating media in different contexts.

McLuhan's four laws of media in video game design

When it comes to the incorporation of media in instruction, many scholars have made suggestions that are limited in scope, once again, due to surface-level articulations of the nuances and conventions of the media production technologies in question. McLuhan has suggested the four laws of media to help content creators address questions surrounding incorporating media in instruction:

1. What does [this technology or medium] enhance or intensify?

2. What does it render obsolete or displace?

3. What does it retrieve that was previously obsolesced?

4. What does it produce or become when pressed to an extreme?

(as cited in McLuhan and McLuhan 1988, 7)

Video games, which can currently combine all aspects and affordances of every current medium available, have an interesting way of being able to connect with McLuhan's four laws, because the way in which different video game designers could approach addressing each law. As the inclusion of any available medium may vary, they will be specific to the intended outcomes of the designer. As such, designers of interactive experiences, should strive to address each law in contrast to the desired engagement goals, whether or not they are for entertainment, or educational purposes.

Enhance, or Intensify. Video games, by design, enhance engagement and can intensify focus, using engagement principles that invite designers to afford participants abilities, within specific contexts. For example, teaching a game player how to drive on one side of the road, can do so by disallowing participants to physically drive on the opposite side of the road, using on-screen images, sounds, or force feedback (i.e. an input device rumble, or vibration), and show users examples of what may happen if they do so just-in-time, as the undesired behaviors are detected. Additionally, a designer may simply create a single-lane road, so that the participant need not worry about oncoming traffic entirely, if that is not a core focus of the experience. From a pedagogical standpoint, this is useful because designers, who wish to use multimedia as part of instruction, can seek methods of distributing information interactively, which is congruent with the afforded in-medium context.

Render Obsolete, or Displace. Video games, could render obsolete multimedia within the context of instruction depending on discipline specific incorporation. For example, the recent virtual reality and haptic feedback reintroduction could have a significant impact on the trades, many of which have previously used hand-based controllers and interfaces to manipulate on-screen objects. In this example, simulation can be made more transferrable to the digitized world,

were the imagery and the manipulation of the space from a multimedia context mimicked that of the real world. This will have an impact on different areas of hands-on simulation training devices, as context congruent simulation is an increasing possibility, afforded by virtual reality, and haptic feedback devices. Trade specific displacement may eventually lead to obsolescence, but market prices for the technologies surrounding immersion will first have to decrease.

Retrieved from Obsolescence. Immersion, that is, how participants connect with experiences from a cognitive, tangible, and multimedia perspective is one way that video games contribute to the advancement of interactive experiences. For example, teaching sound design, the historical sonic degradation of sound can be illustrated in a virtual space, because the medium itself can not only afford the use of playing sound at different frequencies, but it can also immerse participants in the historical spaces from the point in history that it occurred, in addition to affording participants the ability to discover the aforementioned on their own, within a controlled environment. Immersion can be reinvigorated, simply because it can be afforded alongside pedagogy, while connecting participants to engaging experiences.

Produce or Become When Pressed to an Extreme. Video games, as they can incorporate all of the different affordances of current media, are still in the infancy stage of being pushed to an extreme. To clarify, the video game as a medium has only started becoming part of cultural significance as of the early 1970's, and, it is still in its infancy as design becomes a critical method of guiding participants through an interactive experience. To expand, there are newer games like *That Dragon, Cancer*, that immerses participants in a world where they, as a parent, are responsible for experiencing life in a neonatal intensive care unit, while waiting for their child who will, eventually, die from cancer. The tougher portion of this experience is that it is a direct interpretation of the creator, who programmed his reinterpreted experience as part of his

design. Here, the 'game' is not 'fun', but it does teach participants about a real-world issue. There are other experiences, such as in *The Cat Lady*, which immerses players in the life of someone dealing with depression. These types of games are often removed from the public sphere of information, simply because they challenge the misconceptions of what video games can also be.

McLuhan's four laws of media invite content producers to consider the affordances of different media, but these laws may push educators away from the semiotics, and cultural models of content creation that are present in video games. The four laws connect well with the semiotics of multimedia within the context of video games and interactivity, as they effectively set up multimedia in instruction to create achievable goals that connect with the needs of participants, based on design and production platform affordances.

Learning Theories

When designing instruction, and particularly when multimedia is included, it is critical that the needs of the learner are a focal part of the discussion, as the learner is one core reason behind the development of instructional content (Cairncross & Mannion, 2001). It would be important, then, to address the needs of content consumer, or, learner, in a way that can be generalized across varying disciplines. In the case of multimedia development for entertainment, similar to learning, there are many forms of information being presented to consumers, but, in the case of multimedia instruction, it may be useful to consider what properties of learning, including cognition, and cognitive load, connect best with making knowledge portable, and demonstrative in areas separate from their point of learning as a means of identifying purposeful implementation strategies and approaches to content creation.

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Cognitive Load

Cognitive load theory (CLT) considers the nature of the learner, inviting designers to develop instruction that procedurally caters to working memory, long-term memory, and schemata (Sweller, van Merrienboer, & Paas, 1998), where overloading the first of the three aforementioned memory processes can harm the transition of content to the learner. Many scholars have described, and continue to describe, theories that help enhance the discourse of how to teach and, importantly, how learners transfer information. The dual channel theory (Paivio, 1986, Baddeley, 1986, 1999), similar to multimodal theory (Mayer 1997, Kress, 2001) suggests that there are two ways that humans can process information - aural and visual. This theory recognizes that there are different ways in which an individual can consume content - cognitive pipelines where information can flow through. Following the recognition of the pipelines through which the content can travel, the dual channel principle suggests that humans are capable of consuming information separately, yet simultaneously via the two aforementioned channels. Translating into instructional design, this means that it is possible to teach in two ways simultaneously by catering to both aural and visual channels when using multimedia in instruction. The ways in which knowledge makes it to, and through to, the learner has been detailed across academic studies in a succinct way, taking into account the delicacy and processes involved with learners solidifying concepts for use outside of the original context. The process of information passing through cognitive pipelines involves an intricate balance between difficult and simpler concepts, in order to transition into permanent memory – the place where learned materials are made ready for use in other contexts. These three transitional areas, as outlined by the literature, are detailed below.

Cognitive load theory. Intertwined with the presentation of multimedia content is the consumption of the content, that is, how much of the presented content is consumed and retained by the consumer, or, learner. Cognitive load theory deals with the gradient of content, from the perspective of weighted difficulty levels, from simple to complicated, within the context of instruction (Sweller, 1994). Sweller notes that, though the difficulty levels of content within the context of learning are artificial in nature, the weighting is of significance, as this is what ultimately determines whether or not learned content remains with the learner. To that end he, among others, suggest three levels of cognitive load: intrinsic, extraneous, and germane cognitive load. The first two concepts, relate to working memory load, where a balance of difficulty levels must be maintained in order for concepts to rest in germane cognitive load (Sweller, 1994).

Intrinsic Cognitive Load (ICL). Intrinsic cognitive load (ICL), detailed by Sweller, van Merrienboer, Paas, and others, is highlighted as the critical entry point for the intended destination of content retention. It is where a balance must be maintained from a difficulty standpoint to not overload the learner, expanded in detail later.

Extraneous Cognitive Load (ECL). Contrasting ICL is extraneous cognitive load (ECL) (Akinlofa, Holt, & Elyan, 2014), where concepts that are too cognitively intense overload learners. Here, concepts have difficulty moving on to the final stage.

Two core levels of interactivity make up ICL and ECL regarding where content rests between areas of adhesion to or disconnection from concepts – these are low element interactivity (LEI) and high element interactivity (HEI). These two variables specifically address ways of thinking that instructors, who are generally subject matter experts, should be proficient in – understanding difficulty levels of content. It is the concepts that follow which, I highlight,

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are missing from the literature when studies incorporate multimedia in instruction.

Low Element Interactivity (LEI). LEI deals with the nature of the weight of the content to be learned (Abdul-Rahman & du Boulay, 2014). In LEI the weight is considered to be easier for content consumers to digest – basic concepts are covered here.

High Element Interactivity. Conversely, the high element interactivity (HEI) deals with items that are more difficult in nature for learners to digest, weighted in order to contrast the elements delivered in the low element interactivity phase.

The 'weight' of content in LEI or HEI is dependent on the interpretation of the content by the instructor from the standpoint of pedagogy. In this regard, both LEI and HEI have seen application throughout many disciplines including multimedia task relevance in Human Sciences, Chemistry, Political Science, Mass Communications, and Education courses (Austin, 2009); the properties of the material to be learned in Computer Program Development through Learning Examples using Completion and Structure-emphasizing Strategies (LECSES) (Abdul-Rahman & du Boulay, 2014); and "natural load" in interactive animated multimedia presentations surrounding human motor skills (Wong, et al., 2009), where the specifics of the LEI and HEI weight were best known by those who were creating that content. There are optimal ways to proceed, but much of the weight and nature of the content is dependent on a specific number of items, to be determined by the content creator. Further consideration of the procedures surrounding the dissemination of content is necessary (as cited in Sweller and Chandler 1994; Tindall-Ford et al. 1997). These considerations are where, I argue, the transition between instructor and instructional designer through multimedia begins to become more apparent as a focus, as teaching a subject is a separate process from producing a multimedia work, both cognitively, and practically. Once a balance is achieved between LEI & HEI information can

transition from this intrinsic layer, to the stage where concepts rest, the germane stage.

Germane Cognitive Load. Germane cognitive load (GCL) is the intended destination of most instructional designers, regardless of whether or not multimedia is involved. It is the cognitive resting place where the learner has solidified concepts and knowledge, enough to overtly display understanding (Wong, et al, 2009; Sweller, et al, 1998; Sweller 2010; Mayer & Moreno, 2010; Hoogerheide, et al, 2014; Brünken, et al, 2003; Abdul-Rahman, et al, 2014). Also described in the literature as cognitive schemata (de Croock & van Merrienboer, 2007), GCL focuses on the endpoint of instructional design, but often fails to suggest how to get there, particularly, from the standpoint of media production.

Cognitive Overload

One core aspect of multimedia-based content development, specifically regarding the way that it is delivered, is that, as multimedia often involves the aural and visual pipelines of content absorption, consumers of instructional content including multimedia often run the risk of cognitive fatigue, or cognitive overload (as cited in Baddeley, 1986, 1999, Chandler & Sweller, 1991). Therefore, a content creator must be prepared to acknowledge, or, think about the learning and knowledge level of the student – which can range from novice to expert. This is the delicacy between the aforementioned levels of interactivity. There have been some suggestions that multimedia cognitive tools can be used (Derry, Hmelo-Silver, Nagarajan, Chernobilsky, & Beitzel, 2006), where multimedia instructional designers should consider using a foreshadowing approach, that is, some hinting at what must be done without an overt telling of the concepts in question. It is here where designers must use caution, as adding too much information could also jeopardize the learning, should the content be too readily available for even a novice (Plonka, Sharp, Van Der Linden, & Dittrich, 2015). This is where instructional designers are proficient – when it comes to knowledge of the discipline, generally, instructional designers know how to cater to cognition. It is my argument, however, that, when instructional designers choose to incorporate multimedia in instruction, the mixing of course content with the semiotics of 'multimedia' can augment the potency of information, depending on the medium and procedures attributed to that medium. Here, if instructional designers add extraneous information via multimedia, they run the risk of giving learners too much information, effectively overloading the cognitive channels necessary for content to be effectively consumed by the learner. There is a limit to the amount of information that humans can process at any given time (Jadin, Gruber, & Batinic, 2009), particularly in a classroom setting. Translating into instruction, this would mean

that an instructor must be aware that an overload of this limited capacity, though not necessarily

fixed, is a possibility as "[i]t follows that if a picture merely reiterates the information of the text,

it is possible that the picture will hinder rather than enhance learning." (Rasch & Schnotz, 2009).

Understanding cognition and the multifaceted learner needs is a critical part of the multimedia

instructional design process. If instructors fail to identify learner needs, it will be difficult to

design multimedia instruction that connects the semiotics of multimedia with those learner

needs.

Affordance Theory

Affordance in Instruction

When it comes to instruction, there is no question that design is part of the process. In

designing instruction, that is, the crafting of content, instructors are, as psychologist J.J. Gibson

would suggest, creating a world – a world that involves a set of rules – a bounding box

surrounding participants who interact within the limitations of the box. Within the rules of the

world are affordances, where participants are afforded or, allowed to, engage in world-specific

options of interaction. In instruction, an example of a world would be an assignment outline,

where participants are told what is needed from them, and what is expected of them. In this

example, the world is the assignment in, say English; where the rules are the parameters of the

assignment (i.e. 2000 words maximum, double spaced, APA format), and within this world,

participants are afforded the ability to write. Note that, in this English assignment example, the

student is not afforded the ability to add extra pages, submit a single-spaced document, or write

in MLA format – that is not what affordance theory embodies as "Learning is a result of

variation, accomplished through exploratory activity that leads to perception of consequences

(new information) and of selection." (Gibson E. J., 2010). Participants are afforded the opportunity to select, and participate within (Greeno, 1994) – not unlike instruction.

Affordance in Multimedia Instruction

But affordance theory, if relevant in instruction, must also be a significant part of multimedia instruction, which, as previously mentioned, requires a separate set of considerations from instruction, particularly given the potential afforded by each component of multimedia. To that end, there are details surrounding media affordances, among others, particularly where computer technologies are concerned, that can help shape the discussion focus more closely on matching multimedia objectives with pedagogical ones. Bower suggests that each facet of multimedia has an affordance – text contains an affordance of "read-ability" and "draw-ability" (Bower, 2008), but this, in my view, needs to be expanded in a way that articulates the roles involved in the process of multimedia production and consumption. Explicitly detailing the roles, shifts the conversation from the properties of the term, into a description of terms as they apply to the roles involved – that there is a content producer, and a consumer of produced content (Conole & Dyke, 2004). Further, Gibson describes that there are perceived affordances which, in my view, detail the end-user perspective – what the learner feels able to do with content provided to them. To that end, I would suggest a divorcing of Bowers terms, in a way that better highlights the affordances of the medium, and the perceived affordances as the learner might see them. A chart of those suggestions follows:

Table 3

Media Affordances (Bower, 2008 & Gibson 2010)

Term	Perceived Affordance	Production Affordance
Text	"read-ability"	"draw-ability"
Images	"view-ability"	"draw-ability"
Audio	"listen-ability"	"speak-ability"
Video	"watch-ability"	"video-produce-ability"

Though the terms in the above chart only highlight the utterance-types of multimedia, and not the utterance-forms, the affordance theory, as it applies to the end user, and the perceived affordances are articulated here. A separate set of affordances relate to instructional designers, specifically looking at the limitations of users. Bridging the semiotics of multimedia, Mcluhan's laws of media, learner needs, and platform affordances is still not sufficient enough to begin creating multimedia in instruction, as there are additional constraints that should be a considered part of the multimedia instructional design process – the constraints of creators and end-users.

Affordance Core Constraint Categories

Electrical Engineer and Psychologist Donald J. Norman, has made three core categorizations of constraints and conventions as they pertain to end-users, which are portable to the discourse surrounding the nuances of instruction involving media production; physical, logical, and cultural constraints.

Physical constraints. On the surface, a physical constraint outlines software usage limitations (Norman, 1999) as it is not often the case that instructional designers, who use media production tools, write computer code that physically changes the way that a program behaves.

This goes hand in hand with the discussion surrounding the nuances of multimedia, where rushing toward trending technologies, without consideration for utility can lead to surface level of integration of multimedia in instruction; where many new technologies are serving as 'shell'-level instances of traditional presentation styles and formats, or afterthought (as cited in Thomas & Wyatt, 1999). Further, it is arguable that designers who aren't familiar with the cultural models and semiotics of multimedia, nor those associated with production computer technologies are at an even greater disadvantage of knowing how to better connect multimedia to classroom instruction through the use of computer technology – the difference in, say, creating instruction in slide-based PowerPoint™ presentations, or in a three-dimensional virtual learning environment (Dalgarno & Lee, 2010). Here, the restriction includes the properties of the production tools themselves, as they are the surrounding structure for educational materials.

Logical constraints. Logical constraints detail the perceived affordances of the user who, in this case, is the instructor. One example in practice is that, generally, Microsoft Word 2011, a program designed to capture, organize, and disseminate thoughts primarily through text, does not natively afford its users the ability to capture photos. Conversely, an instructor may not know that it is possible to record audio into Word, as a means of note taking for meetings or coursework. In this example, the instructor is limited by their own knowledge of the program, and though the program can, in fact, record audio, it is not an affordance for the individual as a user, simply because they did not know that the feature is available. Connecting to the semiotics and cultural models of media production, an understanding of the utility of the components of multimedia would better allow designers to seek programs and production technologies that are congruent with the intentions of the instruction as "[l]ogical constraints go hand in hand with a good conceptual model." (Norman, 1999). It is arguable, however, that these conceptual models

are cultural, which again connects with the semiotics and cultural models of media production –
where the semiotics of multimedia are selected first, and the technologies are then selected in
accordance with the intended goals of the nuances of multimedia, as they connect with
pedagogical goals.

      Cultural constraints. Almost congruent with the cultural model theory previously
outlined by Gee and others, here, hidden meanings and cultural models exist surrounding the
specifics of content involving media production. To reiterate, this has to do with the cultures
embodied by the field, which, in this case, is media production. The thinking behind the use of
these logical, physical, and cultural constraints of still images, moving pictures, text and sound,
is often for the purpose of engaging the viewer. This is similar to the other areas of this paper,
but it asks multimedia instructional designers to acknowledge their own competencies as they
apply to both their discipline, and to media production skillsets.

Matching Multimedia with Pedagogy in Simulation

      So far, this paper has covered the semiotics of multimedia as they connect with learner
needs, within the contexts of various fields. In order to better understand these concepts, it might
be useful to look at how this appears in practice, that is, how multimedia is being used to match
form with function.

Matching form with function – Methods, Approaches & Storytelling

      The concept of matching form with function using multimedia is not new. It entails the
identification of pedagogical goals, and then the subsequent integration of materials, which may
include media, that best connect with those goals (as cited in Morrison et al., 2007; Clark 2001).
This being an underlying assumption, how, then, can the telling of this story, or dissemination of
this content best cater to learning? The answer may rest in the two parts of instruction that Clark

and others detail - methods and strategies. Clark suggests that 'methods' describe the conditions - platform, or format selection, that best match the intended goals of instruction while accounting for cognitive overload. He expands that 'approaches' are the pathways taken to get to the former (Clark, 2011). To relay this explanation to multimedia in instruction, the methods include the semiotics of multimedia, which include audio (sound effects, dialogue, & music), video (static and moving), and text (static and moving), in combination with format used to present those materials (i.e. blog, podcast, wiki, vlog, web conference), and the approaches are the strategies used to convey information via multimedia, which are contingent on academic discipline and pedagogical intent. In the field of media production, multimedia is generally used to tell stories while conveying information. As such, the semiotics of multimedia instructional design are of critical importance. The aforementioned methods and approaches connect with the telling of the story, which is ultimately what leads to consumers, learners, retaining content. But how does matching form and function manifest itself in the learning in areas other than formal education, where demonstrated learning through transfer is also significant?

Simulation in Instruction

In the workforce, one method of multimedia instructional design that has largely been adhered to as a result of its successful integration is simulation (Collins & Halverson, 2009). Simulation, here, refers to a space, digital, or physical, where participants are afforded opportunities that mimic that of the intended destination of skill set transfer through to the previously mentioned schemata and germane cognitive load. In first year nursing, for example, simulation is used as part of the knowledge acquisition process (Burke, 2010; Waldner & Olson, 2007). Here, the story or content associated with training is clear: that generally nurses are tasked with caring for patients. To continue with the first year nursing example, there are three core

simulation areas associated with nursing training: computer-based simulation, task-based simulation, and full-scale skill-based simulation (Waldner & Olson, 2007). The core affordance of instructional design, here, is simulation – where participants are asked to use computer software, interact with a human-controlled realistic training body part, or participate in a scenario involving real people acting as patients. The story or, method, behind the simulation here is clear – helping and healing. The telling of the story, or approach that makes the most sense in this story, is the simulation itself. Further the idea that simulation is successful is connected to the Herzberg theory, which suggests that learners adhere more to pedagogical concepts when they are able to see themselves within instruction, embodying two factors: satisfaction and motivation (as cited in Herzberg, Mausner, & Snyderman, 1959; Herzberg, 1966).

Though some nursing instruction is a culmination of multimedia, affording learners opportunities for interaction, there are other disciplines such as neonatal resuscitation (Halamek, 2008; Anderson, Aylor, & Leonard, 2008); impaired postural stability (Laufer, 2008); laparoscopic skill training (Laufer, 2008); meteorology (Johnson & Meyer, 2009); (Moreno & Mayer, 1999); communication and media studies (Neo & Neo, 2009); sports and exercise (Jacobson & Matthaeus, 2014) motor skill development (Wong, et al., 2009); virtual environments (Mania, Badariah, Coxon, & Watten, 2010); and education (Reece, 2007); where the goals of instruction are similar: the transfer or demonstration of learned materials in practice. With these examples, simulation appears to be more common in disciplines where health, care, and performance are of utmost importance, arguably because there is an element of succinctness necessary for the intended results. A simulation addresses the aforementioned theories of cognition, and refines the discussion of matching technology with pedagogy because it can "…enhance work motivation and satisfaction [] to the degree that "motivators" are designed into

the work itself." (Hackman & Oldham, 1976). Arguably, simulation in instruction can cater to learning as it calls on multimedia instructional designers to understand "…relationships between the cognitive inputs, cognitive attributes (processing streams), and outputs (behaviors) to be measured." (Lamb, Vallett, Akmal, & Baldwin, 2014). The argument surrounding simulation is that they are immersive environments that require more cognitive resources, particularly those that simulate high-stakes environments (Halamek, 2008) – immersive because of how closely the media within instruction can match that of the real-world, and high-stakes because, many of the simulations used in instruction serve as testing tools for learners – collecting trace-data based on user interactions (Dunleavy, Dede, & Mitchell, 2008). Claims surrounding these cognitive resources often suggest that the immersive and realistic nature of some simulations leads to an increase in the experience of remembering (Mania, Badariah, Coxon, & Watten, 2010), because participants are reported to connect more with presented materials. Translating into instruction, one should consider what content they need to teach in order to conjure specific design, and composition intentions, while maximizing the potential to cater to learner attentional resources (Woltz, Gardner, & Gyll, 2000). The multimedia educational content, split in the aforementioned ways, should also serve as a sort of guiding, hinting, or foreshadowing to content consumers, where an approach to instruction is taken that withholds the exact answers to problems, while guiding users in a way that they are likely to absorb the answer. With simulation being an exemplar approach to connecting users to pedagogical content using multimedia, This is where, I argue, the potency of both simulation and video games becomes more significant as it pertains to multimedia instructional design pedagogy, because motivation can be built into the core mechanics of instruction.

The multimedia educational content, split in the aforementioned ways, should also serve as a sort of guiding, hinting, or foreshadowing to content consumers, where an approach to instruction is taken that withholds the exact answers to problems, while guiding users in a way that they are likely to absorb the answer. With simulation being an exemplar approach to connecting users to pedagogical content using multimedia, This is where, I argue, the potency of both simulation and video games becomes more significant as it pertains to multimedia instructional design pedagogy, because motivation can be built into the core mechanics of instruction. But there are other theories that could connect with learners, particularly where playing is part of the simulation.

FLOW Theory

Another way that simulation captivates participants is the way in which those engaging with a particular experience remain engaged. Csíkszentmihályi, in 1990 and 2014, describes this continuous engagement or, focus, part of a FLOW theory, where participants become so engaged by an experience that their entire focus is both commanded and maintained

In the four parts of this creation-as-research dissertation, the FLOW theory has been explored within the context of the 8-theory congruent video games that must be played as part of the course. In 2013 Schaffer built on the FLOW theory by suggesting 7 conditions to test the immersive potential of an experience.

1. Knowing what to do
2. Knowing how to do it
3. Knowing how well you are doing
4. Knowing where to go (if navigation is involved)
5. High perceived challenges
6. High perceived skills
7. Freedom from distractions

(Schaffer, 2013)

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These conditions are explored throughout the Gaming, Interactive, and Multiplatform Media course via the 8 theory-congruent video games that are part of the engagement with the theoretical underpinnings of game design, as well as those expressed as part of this dissertation.

FLOW Limitations

Further, a limitation of the FLOW theory within the field of education, I would argue, is the element of motivation often present in online spaces or video games. To clarify, there is a different participant connection when one chooses to engage in a designed experience where the semiotics of multimedia are closely and clearly connected to the medium. Conversely, in a classroom experience that does not contain the same contextual nuances as the chosen medium in a classroom setting, such as adding a trending social media site to instruction in an attempt to be 'with the times' one may run the risk of attrition due to cultural disconnection from the chosen medium and the contextual use of that medium. This is discussed in detail by the skill level of the participant, and the balance level of the experience.

Future iterations of this research should evaluate these conditions within the context of experiencing the overall course, but these conditions have already been explored within the context of the simulation experiences found in the games played as part of the course.

Video Games as an Exemplar of Multimedia Instructional Design

The details surrounding some of the semiotics of multimedia, as they connect with the multifaceted needs of learners, take into account the affordances of design platforms and designer limitations; they also give evidence of successful integration of the aforementioned in simulation-based instruction. As such, it is now time to focus on video games, and video game design, as the core platform that this creation-as-research thesis is designed.

What is it that video games encompass that makes them such a good candidate for the underpinnings of multimedia instructional design? The answer is simple – they encompass the semiotics of multimedia – sound effects, music, dialogue, video, text, and all of the cultural models known to the field of media production, blurs, zooms, fades… but, with an added affordance – bidirectional user input – where it is possible to provide multiple outcomes based on the alignment or deviation to desired pedagogical results. Similar to simulation, video games are one place where content creators can afford learners tasks that mimic real-world scenarios, while explicitly matching procedures and tasks with the learning process. Gee speaks about what we can learn from video games, suggesting that video games are a hub for learning, in that they serve as "…problem solving spaces that use continual learning and provide pathways to mastery through entertainment and pleasure. (Gee, 2009). This is in alignment with the theories detailed in this paper, and it is well supported by other video game theories that embody the principles of levels of interactivity, such as providing viable options for participants to enhance engagement (Sirlin, 2015). But these are not the core reason behind the potency of video games within the context of multimedia instruction. Video game design calls on content creators to unpack, parse, and repackage core concepts as a means of directly tying them to the medium, generating procedural representations of them in game (Steinkuehler, Squire, & Barab, 2012). This is a

critical part of my argument, as video game design demands that its creators match the semiotics of multimedia with content. In video game design, as in media production, there are core cultural models surrounding how to best guide users to and through objectives. For example, Bogost has suggested the 7 types of persuasive technologies that are specific methods of matching form with function in video game design. A table outlining the portable elements to the different disciplines in this paper follows:

Table 4

Parallels between Bogost's 7 Persuasive Technologies (Bogost, 2007) *& other concepts*

Persuasive Tech.	Description	Parallel Concepts From This Paper
Reduction	Task simplification	Intrinsic/Extraneous Cognitive Load
Tunneling	Objective guidance	Low/High Element Interactivity
Tailoring	Personalization	Satisfaction and Motivation
Suggestion	Sensitive help	Cognitive Load Theory
Self-monitoring	Personal feedback	Satisfaction and Motivation
Surveillance	Objective alignment	Platform affordances
Conditioning	Task reinforcement	Hinting and Guiding

These codes, and cultural models are an assimilation of the semiotics, learner needs, affordance theories and simulation elements detailed throughout this paper. Each persuasive technology directly addresses how to connect users to learning objectives via the medium, which can include all semiotic instances of multimedia as detailed in this paper. The core difference here is that many of the theories outlined above, and in game design cultural models, are detailed within the context of addressing specific objectives, widely pedagogical, as they exist within the

medium (as cited in Crawford, 1982). To clarify, these aforementioned theories from video games could apply to various disciplines outside of video games, as these conventions tie in directly with the semiotics of multimedia – with utility tied to semiotics, and not to specific technologies. In order to upgrade the knowledge economy surrounding multimedia in instruction, it is necessary to tease out the properties of multimedia, by understanding and demonstrating the underlying uses of multimedia as it connects, specifically, with learning objectives and outcomes. It is in looking at the cultural models provided by video game design that educators can shift away from trending technologies and move towards methods of multimedia instruction that are more aligned with the needs of their students, as pedagogical objectives can be matched with the most pertinent elements of multimedia production. Designing multimedia in this way, in my view, caters to the ways that many humans naturally absorb content – through the biological senses. In this regard, technology is seen as a secondary resource – a vehicle designed to transfer specific multimedia content that connects with specific intentions. With these design intentions in mind, I hope to craft an effective example of multimedia within the context of instructional design. In order to do this, I will engage with methodologies that highlight the semiotics of multimedia as part of the design process, while displaying those intentions in a project that can be experienced by participants.

Creation-as-Research: Consumable Artifacts

This creation-as-research project is outlined in this section. Two separate areas are outlined via two different multimedia production processes, a website, and a 15-segement video.

Online Course: Gaming, Interactive, and Multiplatform Media

The first link, is a live link to an online example of the Gaming, Interactive, and Multiplatform Media course. Here, you can consume the course as it can be experienced by participants. The link for the course is below:

Please **DO NOT** distribute this link

https://mps.humber.ca/gaming-interactive-media/#

Course Walkthrough: Gaming Interactive, and Multiplatform Media

The second link, is a walkthrough of the course. Here, you can experience the way I intend the course to be consumed by participants, in addition to some of the reasons behind the course development decisions made as part of the creation-as-research process. The link to the 15-segment video is below:

https://youtu.be/gYEEP5GVam0

Methodology

This thesis will use the research-creation model as a core methodology for the *Gaming, Interactive and Multi-Platform Media* online course. This research-creation methodology, from Chapman and Sawchuck's 2012 work, employs a four-pronged categorical approach to research creation, involving *research-for-creation, research-from-creation, creative presentations of research, and creation-as-research*. Further, this methodological approach suggests that research-creation projects involve three core elements – a creative process, an experimental aesthetic component, and an artistic work (Chapman & Sawchuck 2012). Within this research-creation methodology, topics are selected based on their inability to be adequately addressed without a production of some sort of artifact, which usually involves some combination of the core elements of 'multimedia' – sound, text, and images. It is critical to highlight that, this thesis focuses on only one of the four categorical approaches to research-creation: creation-as-research. Missing from this methodological approach, and in the use of the term multimedia, is the way that participants can engage with the various forms of media involved, and it is for this reason that I will also incorporate the interactivity model from Russell Richard's 2006 work, in which the development of interactive works, calls on its creators to develop materials containing three core modes of interactivity; *consumer*, *processor*, and *generator.*

The Four Categories of the Research-Creation Methodology
Research-for-creation

In this category of research-creation, projects tend to involve the collection of "materials, ideas, concepts, collaborators, [and] technologies…" (Chapman & Sawchuck, 2012). Here, the

initial construction of the project occurs. The collection, or gathering of ideas is considered research, because it involves congruent processes to traditional research, while remaining focused on a future end goal, as a practical artifact (as cited in Heidegger, 1977).

Research-from-creation

In this category of research-creation, the process of creating elements is also seen as research as the creation or production of elements calls on creators to understand how these components will affect participants, and the work itself (Chapman & Sawchuck, 2012).

Creative Presentations of Research

In this category of the research-creation framework, the artistic completion, finesse, or post-production of materials is of importance. Here, aesthetic, interactive, and procedural decisions are made that are unique to each project (Chapman & Sawchuck, 2012).

Creation-as-research

In this category of the research-creation framework, investigation of the created works is of focus. Here, the testing, or, hands-on interaction with the produced work is what additionally contributes to the research, as experience with the work also confirms the utility of the processes involved in the creation (Chapman & Sawchuck, 2012).

The four categories of the research-creation methodology are closely connected, so much so that it is often difficult to distinguish the differences between them. From a media production cultural model standpoint, however, this framework can be applied to the planning, production, post-production, and evaluation stages of produced works. As mentioned previously, the research-creation framework looks at multimedia in a specific way and, for the purposes of this research-creation thesis, one more model must be applied to address the affordances of the online environment – interactivity.

Interactivity Model

The core of the development process, which is imbedded in the research-creation framework is the interactivity model refined by Russell Richards in 2006, where interactivity is designed as both a property, and an activity. Three modes of interactivity; *consumer*, *processor*, and *generator* (Richards, 2006), are an effective method of delivering multimedia content that takes multidirectional input between participants, content, and user-focused contribution into account.

Consumer Interactivity

Consumer interactivity, Richard suggests, involves the traditional unidirectional multimedia consumption process. Here users are afforded little influence on the outcomes of actions, beyond simple navigation and selection. For example, a request for a participant to watch an online video, calls for the passive consumption of audiovisual materials. Here the consumption of the video doesn't necessarily change the nature of the content where the original video link was posted.

Processor Interactivity

Processor interactivity, he continues, involves the participant contributing beyond the traditionally didactic model, while still operating between some creative constraints. Here, users are afforded more influence with the content, but in a task-oriented way. For example, asking participants to find a website and post a link in an email falls into the processor category. In this example, while participants are able to submit links of their own selection, they still must find a website link, copy the link, paste the link into an email program, and send that email. Further,

participants are being asked to locate a finished website, rather than create a website of their own design.

Generator Interactivity

Generator interactivity, involves participants being requested to connect with content and interpret it in ways that are dependent on their own personalized input. Here, an example would be the creation of an artifact, such as a video game design document, which interprets participant understanding of course academic theories, historical knowledge, and popular cultural ideas.

What follows is a specific outline of what each of the 15-weeks of the *Gaming, Interactive, and Multi-Platform Media* course will address. This will be detailed within the context of the aforementioned research-creation framework and interactivity models. With the interconnectivity of the research-creation methodology categories: *research-for-creation, research-from-creation, creative presentations of research, and creation-as-research*, note that each course module will connect with all 4 categories within this methodology to varying degrees, though each will connect to all 4 categories as a core objective of this research-creation thesis.

> "Clearly, these [four] categories are not easily separated, and each is
>
> connected to the others. Further, they do not merely occur in a linear
>
> sequence, but can be ongoing, and happen simultaneously."
>
> (Chapman & Sawchuck, 2012)

Following the detailing of how each module connects to the Chapman and Sawchuck's research-creation methodology will be a specific detailing of how, multimedia and technologically speaking, each module connects with Richard's interactivity model.

Limitations

One limitation to the creation-as-research methodology used in this study could be the discipline-specific cultural nuances of media production and video game design theories. If an educator were foreign to both media production practices and their contextual nuances within the context of interactivity and simulated experiences, the utility of this creation-as-research dissertation may be tough to understand. To clarify, if an educator from a different field attempts to consume this dissertation, and cannot engage in the learning of the semiotics of multimedia as they are presented in the project itself (i.e. going through the 15-module course as a means of learning the unknown information), then the dissertation may seem void of contextualization, and substantiation. Conversely, were an educator to immerse themselves in the four areas of the creation-as-research dissertation in its entirety, they will be able to understand how, as an instructor, they may begin to craft interactive experiences as part of incorporating multimedia into classroom instructions which may more closely match their desired learning objectives.

Analysis: Introduction

Within the context of the creation-as-research methodology, I have developed a course syllabus for a course in video game design, entitled *Gaming, Interactive and Multi-Platform Media*. This course will draw upon core video game design theories suitable for post-secondary learners, with no prior knowledge of video game design concepts, in order to provide a stable theoretical and practical industry-level foundation. The resulting 15-week syllabus will serve as the foundation for the development of the course materials, multimedia components, and interactive portions of the course, all of which will be featured in an online environment.

Next, all of the course content has been developed for the aforementioned 15-week course in video game design. It is important to highlight that the content needed to vary from traditional course material, as the intent is for this course to be consumed in an online environment. This will included academic research, audio, video, pictorial, and text-based media production. Further, the course is built to be asynchronous, so that consumers are able to progress at their own pace.

Thirdly, the multimedia elements, created to be part of instruction, will be packaged, and made available and accessible in an online environment, a server. Further, the formatting of the text, as it needs to exist in the space is a critical part of how the final product will be experienced. This production phase will include, but not be limited to, sound design, video production, picture procurement, curated playable video game playlists, integrated blog functionality, integrated wiki spaces, assignment upload functionality, among other elements.

Finally, still within the creation-as-research methodology, critical review and analysis of the aforementioned areas follows, to ensure that the online manifestation of *Gaming, Interactive, and Multi-Platform Media* is congruent with what the intentions of the course are. This needed to

be done from the perspectives of an educator, researcher, a media producer, a web moderator, a game designer, and a user-experience designer, among other perspectives, specific to these disciplines. This final phase is, in fact, as crucial as the others, as the final product is the only thing that participants - the users, the consumers, or learners, will see.

Analysis

In this analysis, I will detail the specific nuances of the *Gaming, Interactive, and Multi-Platform Media* course, the creation-as-research thesis that focuses on the semiotics multimedia in instructional design, through the context of a course that teaches similar concepts, in video game design.

For the purpose of this analysis, and to better contextualize the reasoning behind some of the aesthetic decisions made in this thesis, I will begin by employing Herbert Zettl's four levels of media aesthetics, which include "*what screen images are made of (basic aesthetic image elements)*; *how they are structured (structuring of aesthetic fields)*; *how [participants] perceive them and how they affect [participants] (mental maps and critical analysis of specific genres)*; and *how they fit into the various intellectual and cultural frameworks for media analysis (media criticism and theory)*" (Zettl, 1998). This framework will allow for the detailing of some of the decisions made as part of the thesis, as they relate to the structural components surrounding the content also detailed as part of this analysis.

Second, I will outline, module-by-module, how multimedia within the context of video game design, can contribute to instructional design. I will do this in three specific ways: 1) articulating the way that multimedia within the context of this creation-as-research thesis is presented to the participants; 2) articulating *how* the theoretical components of each module connect to creating video game based experiences; and 3) through the articulation of how the

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video game theories explored in each module can be ported into the instructional design discourse, as a means of enhancing engagement between content and participants. It is with this approach to creation-as-research that this thesis will contribute to the instructional design discourse, particularly where multimedia is used as part of instruction.

Course Home Page – Requesting Media Literacy Skills

The *Course Home*, the first page that participants will see, is of critical importance from a pedagogical standpoint, because it is the first time that participants are shown some of the core aesthetics of the course. To that end, the course attempts to show students how the aesthetics of the course, contribute to the overall experience. This will require what Zettle and other theorists discuss as media literacy, a participant skill that requires an interpretation of *how* and *why* the multimedia elements are composed in specific ways. To that end, the *Course Home* page introduces participants to the visual layout of the course, while employing Zettl's four-level media literacy model, which includes - Contextual aesthetic fields and structuring; Aesthetic and Associative contexts; Cognitive and Affective Mental Maps; Intellectual and Cultural Framework for Media Criticism and Theory (Zettl, 1998)

Level 1: Contextual aesthetic fields and structuring – through colour and shading

In the vain of the first level of Zettl's media literacy model, the course requests that participants analyze light and shadows, colour, two-and three-dimensional space, time and motion, sound, and how these elements connect and contribute to the overall experience (Zettl, 1998).

Light, Shadows, & Colour**.** The overall aesthetic of the course uses lighter and darker colours to direct participant focus, hierarchically structuring the pertinence of elements based on the shade. That is, elements that come closer to the traditional colour of paper, white, are of

utmost importance, while the darker colours help to structure content and navigation. The hope with this approach is to imbue students with academic literature connections to course content, as they will soon be responsible for creating their own content, within the context of this information.

Figure 1. *Course home: main page - Upper Screen*

Figure 1 shows the initial *Course Home* page, where participants are taught that navigation and course progression information is contained in the upper, darker portions of the screen. This is persistent throughout the course; the upper portions of the course will contain navigation and contextualizing information such as module quotes and themes.

Two-dimensional space, time and motion. On the *Course Home* page, Zettl's two-dimensional space is used to establish participant content consumption guidelines. The idea of

affording participants module navigation, moving in four directions, along the both the 'y' and 'x' axes (up, down, left, and right), is a common cultural model used in online spaces.

COURSE GOALS

- Learn about video games as a tangible storytelling platform
- Describe game mechanics and balance as significant attention maintenance tools
- Demonstrate production form vs. function in interactive experience design

LEARNING OUTCOMES

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Figure 2. *Course Home: main page - lower screen*

Figure 02 demonstrates how the lower screen of the Course Home, and the first page of each module is organized for participants. Here, it is important to highlight that a set of overall course, or module goals are listed, in addition to learning outcomes. This section explains to participants what they can hope to gain through the participation in the entire course. The idea behind placing all of this information on the first page, is to introduce participants to the concept that they can become familiar with what content follows this page, and what participants can expect to see.

Level 2: Aesthetic and Associative contexts – pedagogical semiotics through icons

The design of the *Course Home* page, and other modules includes icons, which, attempt to explain the corresponding headers, with an image that aims to summarize the semiotic meaning of the icon, in a succinct and concise way. It is the aim that these icons involve themes

found in traditional classroom settings, as a means of articulating to participants the academic

nature of the online course. The icons will be detailed further below.
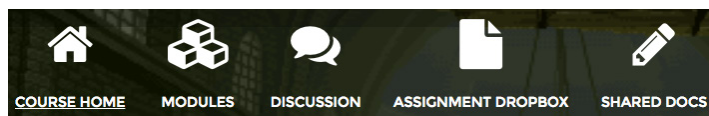
Figure 3. *Course navigation icons. This figure illustrates the symbols and text associated with the course interactive components*

Figure 3 depicts course navigation icons which aim to familiarize participants with the

utility of the different sections of the course. From left to right, the *House* icon symbolizes the

place that participants can always return to as a means of reconnecting with the overarching

objectives of the course. The *Modules* icon uses a three-block cluster of cubes, a symbol aiming

to suggest that together, each module is part of a larger collective objective, specific to the

learning gains in this course. The *Discussion* icon, uses two speech bubbles to indicate that some

kind of conversation will be taking place, with a second overlapping icon indicating

communication with at least one other person. The *Assignment Dropbox* uses a sheet of paper

icon to indicate that participants could be responsible for submitting items, symbolized by the

traditional artifact. Finally, the *Shared Docs,* or shared documents icon indicates that participants

may responsible for writing information as part of this area of the course.
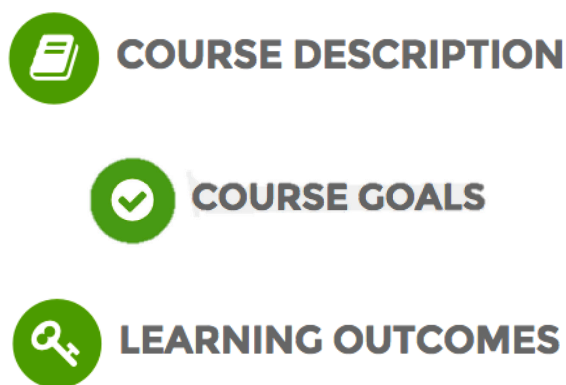
Figure 4. *Content section icons. This figure illustrates the introductory icons to the overall course content.*

The *Course Description* icon uses a book as a symbol of a traditional physical textbook, where information surrounding the structure of the course can be found. The *Course Goals* icon is a checkmark, suggesting that there is a list of items here that will be covered, or 'checked' off throughout the duration of the course. Finally, the Learning Outcomes icon of a key suggests that the content in this section is critical to the course, as it also aims to indicate specific lists of potential course 'takeaways' or learning gains from the information provided.

With all of the icons used as part of this distribution platform, this online portal, it is important to note that the icons used are signifiers for the text written directly beneath, or next to them. That is, they attempt to succinctly explain to participants what they can expect to do throughout each area of the course, and what will be expected of them in sections where input is requested.

Level 3: Cognitive and Affective Mental Maps

The structuring of the course, reading from left to right, and from top to bottom, affects the perception of content, using the commonly used conventions and interactive affordances of the web browser as a content distribution platform, physically mapping content out for participants. The hope with this approach is for participants to 'buy in' to the organizational structure by creating a cognitive map of multimedia content. Zettl suggests that there are two angles to this mental mapping, both cognitive, on-screen and off-screen maps (Zettl, 1998). The cognitive on-screen approach is used to help participants make meaning of the structure of multimedia elements, as they appear on screen. From a user interface design perspective, the content containers aim to shape how participants perceive the structure of the layout surrounding

the course *before* consuming the content within that mental map. The cognitive off-screen map is of utmost importance in this course, as it is the section that allows participants to make off-screen meaning of perceived content. In the case of this course, the cognitive off-screen mapping allows participants to think through what types of experiences they will create, based on their perception of the elements structured in the web-based course. Zettl suggests that this approach allows the participants' perceptions to "…select and order information that fits the given context while readily discarding any information that interferes with the…prescribed world." (Zettl, 1998). Zettl continues that affective mental maps are created, specifically as a result of the different elements of multimedia, within the context of an experience.

Level 4: Intellectual and Cultural Framework for Media Criticism and Theory

Finally, the intellectual and cultural framework for media criticism and theory closely connects with the creation-as-research methodology that this research is situated in. It is in this fourth level where the interpretation of this course connects with the aforementioned 3 levels of the media literacy model. Further, the interpretation of the intended media production and design decisions are also expressed in the alignment between the curriculum, how the curricula are organized, and the participant final course submissions, which mimics the course structure. The final participant submission, a video game design document, should also be demonstrative of the theories and the structural intentions expressed in this document, through the design of the course itself. Further, participants will be shown some of the core interactive mechanics of the course, which afford participation in certain discussions in the online environment, and assignment submissions, throughout the course.

Module 1: Story & Genre

Story, that is, the sequence of information that connects together for a cohesive experience; and video game genre - the category which the aforementioned story is situated in, told via varying facets of multimedia – these two elements are the focal point of the first module.

The first module of the *Gaming, Interactive, and Multiplatform Media* course introduces the concept of storytelling in video games, asking participants to reflect on one core concept: what makes for great storytelling? Video game genres are connected to this concept as, generally, the kinds of story told is connected to the selected genre. This first module attempts to be basic in nature, asking participants to consider selecting a game of their own design, by considering the impact that genre selection, within the context of a video game design, can impact the story.

Participants are asked to use mind mapping software in order to articulate how a game of their own design could begin to come together. Mind mapping software involves the articulating of ideas using a node-based system of connecting concepts, often using text and visual imagery as part of the design. This first module is also where participants can see that the core objective of this course is to construct a single cohesive video game design document, by iteratively constructing each section from module-to-module. Participants are also told that this game design document is the final artifact to be submitted at the end of the course.

The first module was designed to engage participants with the course material, in a way that attempts to connect participants to the video game medium, for video game enthusiasts, and non-enthusiasts. Further, it was created in a way that attempts to informing participants, who play video games, that there is a difference between playing video games, and designing video games.

From the standpoint of instructional design, the first module attempts to use scaffolding with the course content, and the interactive affordances of the online medium. It does this, first, by starting with the core element of good video game design – storytelling. Here, participants from varying levels of familiarity with the content need to find common ground in order to begin detailing what their games will look like. Second, participants will need to become comfortable with the form of the course, that is, how they will be interacting with content within the context of the online web browser based experience.

In this first module, the semiotics of video games are detailed though the conduit of storytelling, which, on the surface can appear to be simplistic. Quickly, participants are taken to explore a popular YouTube™ video that details the importance of storytelling in video games. This video quickly and succinctly details some of the issues that video games face, particularly when it comes to storytelling. The inclusion of an online video in the first module is intentional, as there are two key cultural models evident in this video that I wish participants to engage with immediately; media production cultural models such as cuts, fades, audio, video, and text placement; and cultural models involved in the affordances of interactivity usually found in video games, including bidirectional and non-linear functionality.

For the latter, the first module requests that participants connect to the course wiki, where they are responsible for posting the title and genre of the game that they will be creating as part of their own design in this course, as part of their first assignment. The purpose of this is to connect participants with each other, and have them begin to think about curtailing their ideas for the purposes of a discussion.

8 Issues in Video Game Design

When it comes to video game design, the semiotics of design, as it pertains to video games, can contribute to the instructional design discourse, particularly where the consideration for the inclusion of multimedia is concerned. In 2012, Steinkhuler et al. have outlined 8 core issues involved in video game design; *issues, game design, technology, the iterative process, systems thinking, storytelling, visual art, and sound design* (Steinkhuler et al., 2012), which are of significant relevance to multimedia within the context of designing interactive experiences.

Issues. Issues refer to the relevancy of how the multimedia is crafted, in order to effectively represent the core topic of experience, or, pedagogical goals. Issues are a key element in determining *how* content is selected, incorporated, and implemented on a specific published platform. It is here where the subject, or subjects involved in the intended experience are presented in a theme that is congruent with the desired experience, engagement, and learning outcomes. The articulation of *how* a topic can be experienced through multimedia is of importance in this first issue.

Game design. Game design, here, refers to an understanding of the participant-to-technology relationship, including affordances, reward systems, and how multimedia experiences can guide participants. An articulation of how computer technology integration, which includes multimedia, can help, or hinder a learning experience is of importance with this second issue.

Technology. Technology refers to placing multimedia and interactive content in a place, or platform, where participants can engage with created materials. Further, designers, who wish to use multimedia as part of an interactive experience should "learn[] how to create assets and program and use []development tools." (Steinkhuler et al., 2012). Incorporating multimedia technologies as a component of design calls on educators, who intend on using multimedia as

part of instruction, to also learn the semiotics, cultural models, and production principles associated with the platform that will be used as part of instruction.

The iterative process. The iterative process refers to the cyclical nature of designing using multimedia, within the context of interactive experiences. It calls on creators to create, test, re-test, and refine as part of the design process. Articulating the iterative process as part of the design discourse, as it pertains to including multimedia can help designers better connect with intended experience and engagement outcomes.

Systems thinking. 'Systems thinking' refers to an articulation of the systematic nature of the interactions between participants and technologies while incorporating multimedia as part of the design process. Articulating the didactic or interactive potentiality of computer technologies can be useful to the instructional design discourse, particularly where multimedia inclusion is involved, as it systemically describes design decisions, as they connect with experience objectives.

Storytelling. Storytelling involves the creation of materials that cohesively blend issues and multimedia. Specifically, storytelling within the context of designing experiences should "[t]ake difficult-to-understand concepts and creat[e] a tangible representation of them." (Steinkhuler et al., 2012). This requires an articulation of how technology, including multimedia, can best represent the kinds of concepts that experience that designers wish to convey.

Visual art & sound design. Visual art and sound design combine to lead participants through an experience, using the specific affordances of each – visual, and aural. Within the context of instruction, it would require an understanding of how to create either, and implement their use in a way that engages participants, aligned with intended learning outcomes.

Module 1 introduces participants to some of the core interactive affordances of the course within the context of the online medium; consuming unidirectional online content, processing their ideas, and generating a multimedia artifact via the mind mapping and assignment uploading. Additionally, participants must introduce themselves, and their initial video game design ideas to their peers via an online module-specific wiki. Within the context of instructional design, this first module incorporates the semiotics of 8 issues of game design, in the same ways that the issues can be ported to various educational disciplines that wish to incorporate multimedia and interactivity as part of the pedagogical experience.

Module 2 – Persuasive Technologies in Designed Experiences

Persuasion. Within the context of video game design, it refers to how experiences can be crafted, as a means of producing specific reactions from participants - this is the core focus of the second module.

7 Persuasive technologies in video game design

Situated within the context of Ian Bogost's 7 types of persuasive technologies – *reduction, tunneling, tailoring, suggestion, self-monitoring, surveillance, and conditioning* (Bogost, 2007), this module also introduces video game play as an interactive method of connecting with Bogost's theories, requesting participants to *play through* the 7 types of persuasive technologies in the video game, *Limbo*. The semiotics and cultural models in this module are of significance to the instructional design discourse, particularly because the engagement of participants, as it connects to a multimedia platform which can afford interactivity, is a critical aspect of the 7 types of persuasive technologies.

Reduction. Reduction refers to the simplification of tasks in an interactive environment, as a means of simplifying tedious tasks for users. For example, in most video games that involve walking, walking is usually reduced to pressing a single directional button or moving a joystick in a single direction in order to walk. In this example, although walking consists of using two feet, it is not feasible to call on players to separately press a button for the use of each foot. Additionally, it is not feasible to do so because as an experience designer, one would hope that players are able to absorb other things as part of the experience, rather than get bogged down, cognitively, trying to simulate walking as part of the experience - unless, of course, the simulation of the difficulty of walking is part of the intended design. Ported into instructional design, the reduction of simple tasks may help in the same regard. For example, selecting an

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online publishing platform that affords designers the ability to embed images, text, and video, may be more effective than a site that does not afford the aforementioned, but links away to different third party sites. While on the surface, this example may seem effective; web browser limitations for external links are almost impossible to account for. To clarify, if a single-contained experience begins for the participant, it is likely that the end result will appear the same on the user-end, as it did in the testing phase of the instructional materials. In this example, the simple task of viewing an image, reading text, or watching a video, is contained within a single online environment, removing the need for participants to concern themselves with navigating, locating, and playing content themselves once moving to a third party site.

Tunneling. Tunneling refers to guiding participants down a specific path, as a means of getting them through multimedia content, in conjunction with connecting to specific objectives. In video games, this is often done through the various parts of the game, as part of its design including, but not limited to, animation, text, and sound, within the context of user interface, control, and design. Ported into instructional design, and much like the *Gaming, Interactive, and Multiplatform Media* course, there is a specific path that participants must take in order to finish the course. Although the course is built to be asymmetric in nature, participants can quickly see, in the authentic engagement sections of the course, that it is linear in nature.

Tailoring. Tailoring refers to connecting participants with informational content that leads to a change in behavior, as it pertains to the created experience. In video games, this is often done via on-screen prompts, when players are missing experience pertinent concepts. For example, setting up a system that allows for users to attempt to complete a web-based jigsaw puzzle a fixed number of times and, if players are unsuccessful after a specified variable (i.e. Time delay between attempts, incorrect moves, etc.), then an on-screen prompt may show players what the

designer intended them, as a player, to accomplish with a specified number of pieces. Ported into instructional design, giving participants examples of intended results as part of instruction is one way to implement tailoring, where there is a clear example of exactly what the designer wishes to see accomplished by participants.

Suggestion. Suggestion refers to ways that designers can create experiences that teach, without participants necessarily realizing that they are being taught. This can be done through the design, using multimedia, and the way that it is composed. For example, a two dimensional side-scrolling video game that requires players to walk to the right, can teach a player this through design, by starting the moveable character on the far left, and leaving potential items-for-interaction to the far right. In this example, if the player wishes to explore, they must move to the right, and, if they attempt to move in the opposite direction, the video game camera can be set to not be able to move back, once the player advances to the right – this will absolutely teach that the player, in order to advance through this particular experience, must move to the right, without the use of on-screen text, which may take the player away from the intended experience goals. Ported into instruction, experiences can be designed in ways that call for certain actions, without actually calling for those actions. For example, asking students to enter a wiki and write about the seven types of persuasion, but, creating each wiki so that only a specified maximum of students can enter each wiki, will 'suggest' to students that only a certain number of participants can engage in the discussion of one of the seven persuasive technologies. In this example, students are told to be autonomous but, in fact, because of the imposed technological limitation, they will align with the intended outcome of the module.

Self-monitoring. Self-monitoring refers to the kinds of multimedia that designers use as a means of connecting players with the knowledge necessary to observe how well they can and are

performing within the context of a designed experience. For example, most golf video games will show the player the details of the course, the details of their chosen club, the wind speed, ball strike angle, shot strength, and optimal power indication – many of the core components which allow players to play golf within the context of the video game. These elements allow participants to see their own performance within the context of the designed experience. Ported into instructional design, it is possible for instructional designers to display progress, display assignment percentages, and even module progression in real time.

Surveillance. Surveillance, in video game design, refers to the ability that participants have, to monitor their progress in comparison to other necessary in-experience elements. For example, many flying games that involve a plane flying through aerial space, usually include some kind of on-screen radar, which shows the position of the player, and other pertinent waypoints, obstacles, or objectives on the radar, so that players can monitor experience pertinent elements. Ported into instruction, it may be useful for instructional designers to include course-based elements such as top assignment examples, course progress indicators, including all participant progress, as a way of allowing participants to see progress and course navigation in relation to all participants.

Conditioning. Conditioning, in video game design, refers to the way that the design of an experience steers participants to do things correctly, by allowing them to also do them incorrectly a specified number of times, giving feedback every step of the way. For example, in PacMan®, a game that calls for the avoidance of ghosts as part of navigating the game, the player only needs to collide with a ghost once in order to see, via an animation, sound effect, and on-screen 'number of tries' indicator that it is not desirable to collide with ghosts. Ported into instruction, the *Gaming, Interactive, and Multiplatform Media* course conditions participants by allowing them, each week, to work on a separate part of a completed game design document.

Each week, they are given feedback on, and are graded based on the final intended output for what the course wishes to convey. The final submission is a redeveloped combination of all of the different sections of the game design document, submitted as one cohesive document. Participants are required to make changes along the way, but are allowed to make mistakes on the first pass at each section, particularly since this may be the first time that participants encounter the theories and media production-based information that is part of the course.

Selecting, curating, and using multimedia within the context of engaging participants should take into account exploration, navigation, and education, in a way that allows for designer-led autonomy as part of the consumption process. For multimedia instructional design, this second module is a call for instructional designers to consider curating experiences that afford users interactivity, with guided autonomy. The semiotics and cultural models of the persuasive technologies, within the context of interactivity in video games, are explored in this module, as participants are required consume online course content, and play a video game; process information through mind mapping, spreadsheet usage and charting, and completing an online form; and generate content to by posting content in a module specific online wiki.

Module 3 – Balance in Designed Experiences

Balance, that is, how multimedia elements are weighted as part of created experiences, is the core topic in this module.

6 Components of balance in video game design

Participants will engage with and articulate different components of balance using David Sirlin's 2001 6 components of balance in game design. Sirlin connected video game design to pedagogy via his 6 components of balance, which include *balance, depth, viable options, fairness, asymmetric gameplay*, and *symmetric gameplay* (Sirlin, 2015). These elements have utility for both game design, and instructional design that includes multimedia.

Balance. Balance, in video game design, refers to the weighting between the different options afforded to the player. More easily apparent in multiplayer games, balance is achieved when there are a similar amount of options afforded to all players. Ported into instruction, ensuring that courses can cater to different learning needs, and styles, while maintaining desired pedagogical integrity, should be a core focus of instructional design.

Depth. Depth, in video game design balance, refers to the integrity of the game, that is, how long it can be played over time. In video game design, a game has depth if players play it for years, based on the levels of engagement that the experience affords. Ported into instructional design, the *Gaming, Interactive, and Multiplatform Media* course is designed in a way that a single participant could complete the course two separate times, using a different idea, and complete the course with separate, yet substantial video game design documents.

Viable options. Viable options, in video game design balance, refers to the different choices that designers afford participants, and, that each choice should have meaning within the context of the designed experience. Ported into instruction, the different ways that participants can engage

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with, submit, and access content should be considered as part of the instructional design process. Depending on the selected medium of choice, each platform can afford different options.

Fairness. Fairness, in video game design, refers to the way that experiences are designed so that players have the same potential to succeed, regardless of whether they begin the game with different player perspectives and in-game affordances. Ported into instructional design, creating course goals, including authentic engagements, which allow for each participant, across the entire course experience, to have the same potential to succeed, as long as the entry requirements for the course are met. To clarify, in the *Games, Interactive, and Multiplatform media* course, a participant who has never played a video game before, has the same potential to succeed as someone who has been playing video games for some time.

Symmetric Gameplay. Symmetric gameplay, in video game design, refers to created experiences where competing participants start with the same affordances, that is, what they are able to do against each other. For example, the 1972 Pong game, a variant of traditional tennis, consists of two paddles, equidistant from a center 'net' line, able to move up and down and deflect the 'ball' in identical ways. Here, each player starts the game with the exact same affordances. Ported into instructional design, it may be useful for instructional designers to include supplemental readings, disconnected from course requirements, as a means of providing similar starting options for participants within the context of instruction.

Asymmetric Gameplay. Asymmetric gameplay, in video game design, refers to created experiences where competing players start with different affordances. For example, most sports-based video games allow for team selection. Each team may have different strengths, and weaknesses, different from the other teams. Here, each player starts the game with different affordances. Ported into instructional design, it may be useful for instructional designers to craft

pedagogical materials that can connect to a wider range of learner needs, particularly when including multimedia as part of the instructional design.

In the third module, the semiotics of balance in video games are detailed in the online discussion, online articles, and the game playing of a free Massively Multiplayer Online (MMO) basketball video game. Participants will be shown the intricacies of balancing multiplayer video game experiences in the game playing of *Freestyle 2: Street Basketball*, a free-to-play 3-player online basketball game that features the same theoretical underpinnings outlined in Sirlin's 6 components of balance. Competitive video games, typically, possess higher levels of balance game mechanics, as participants interacting with the medium are frequently connecting with the intricate elements of balance within the context of a competitive environment. As such, the 6 components of balance in video games have been rigorously tested as part of the game development process; this is one core cultural model that participants are tasked with uncovering during this module.

The way that instructional designers create experiences can be limited by the knowledge of what makes for a good interactive experience. Video games have mastered this as part of their design. As such, it would be useful for instructional designers to consider how balance, as a video game cultural model, can be used within the context of instruction. The online medium affords many, if not all of the same affordances of video game design

Module 4 – Character Development in Designed Experiences

Character development, that is, how designers create an affinity between in-game characters, and the participants who engage with them, is the focal point of this module. In the fourth module, participants are challenged to begin developing the characters that align with the ideas that they have articulated in the previous modules. This section will highlight the ways in which video game stories can be shaped, through the development of in-game characters.

The semiotics of character development are detailed in this module, focusing on narration, while highlighting *character personality*, *character motive*, and *character perception*, that is, how actors from the game world articulate their understanding of the created video game world (Swanson, 2012). The idea of highlighting the aforementioned concepts of character design is intentional, as these constructs are further highlighted in the game playing of *Thomas Was Alone*, a game that features highly complex character development, attributed to flat, 2-dimensional polygons. It is through the playing of Thomas Was Alone, that participants can engage with rich character attributes, without the use for high-quality, realistic graphics. Further, narration of the text, further highlights the game design aspects of the course, as this helps facilitate each character, and their attributes.

Module 4 asks participants to interact by consuming the online course materials, and playing a game that contains the semiotic terms, and cultural models discussed throughout the module. In this module, participants will generate information for each of the characters in the games, under the header *Character(s)*, which includes the following sub headers: *character name, backstory, personality, appearance, abilities, and relationship (to other characters)*. They are also responsible for revisiting the original content generated as part of the previous modules, making adjustments based on how characters are developed as part of this module.

When it comes to instructional design, character development may be useful for facilitators, as the telling of stories, in addition to the characteristics of the storyteller can help students connect with pedagogical content. As such, case studies, personal testimony, guest speakers, online videos, online articles, and other multimedia resources may help with connecting students with intended pedagogical objectives.

Module 5 – Setting in Designed Experiences

Setting, that is, where events in a video game take place. This is one core element of game design that adds to the immersion, or, 'buy in' from a player; this is the focal point of the fifth module. The setting that video game designers establish, can connect users with relevant themes and topics, as the world itself should immerse participants in a way that seamlessly transfers goals and objectives, but also attempts to refrain from adding extraneous information.

Setting attributes

In the fifth module, participants are asked to develop the setting that surrounds the other areas of the game design document they have created thus far. The semiotics of setting, within the context of video game design are detailed using the following sub-headers: *Setting Game World (context), Game World (look and feel), Tangible, Non-tangible, Game World (areas), Game World (level progress)*. Each header connects to the story aspect of the game but, more importantly, it is the first time that participants are requested to consider how the story of their games, will connect with the computer technology, using multimedia. This is the core part of the course where the transition or, blurring, between the game design, as it directly connects with multimedia elements as they may exist as part of the video game as a finished work, by creating engagement scenarios, which afford interactivity.

This interactivity is explored through affordances in video games, distributed among three variables: *Can*, *Will*, and *Will Not*, within the context of game setting. These detail what the setting will afford participants from an interactivity standpoint. Students must make design decisions based on aspects of the aforementioned variables, write about these items, and share their ideas with their peers in an online wiki, providing feedback for peers on their own setting ideas. This module also marks one of the first locations of iterative design, where information in

this section, typically, calls on participants to return to, and refine other decisions made about their games, in an attempt to help with in-game interactivity..

Game World: Setting. Setting, in video game design, refers to where an interactive experience takes place. Specifically it is the context that is home to all of the themes, concepts, ideas, and interactions. Ported into instructional design, the setting is of significance, as it calls on designers to select contextual items that best match the desired experience outcomes.

Game World: Look and feel. Look and feel, in video game design, refers specifically to how participants can interact, within the context of the setting. In the *Gaming, Interactive, and Multiplatform Medi*a course, participants are guided to use two variables to articulate how their games will look and feel. The 'non-tangible' variables, 'will' and 'will not', outline what rules participants are forced to abide by for successful navigation of an experience. The 'tangible' variable, 'can', outlines how objectives and affordances manifest themselves.

Will. The 'will' of look and feel, refers to elements that participants must do. For example, in a first person post-apocalyptic dystopian future action adventure role-playing game, *Fallout 3*, the player *will* be able to walk into rooms, and *will* be able to walk around while inside of rooms. In this example, participants who want to successfully navigate through this experience must learn that these are core concepts in understanding how the experience is designed, and how they connect to the ideas and concepts present in the experience. Ported into instructional design, there are always core objectives that participants are required to do, however, finding creative ways of incorporating core objectives, as a seamless part of the instructional design may benefit instruction by offering explorative ways of engaging with core content, as a means of getting participants to complete required tasks.

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Will Not. The 'will not' of look and feel, refers to elements that participants are not able to do. For example, in the same first person post-apocalyptic dystopian future action adventure role-playing game, *Fallout 3*, the player will not be able to fly, dig underground at random points, or, sing, to name a few affordances. With these examples, participants who wish to engage with the experience must accept that they will not be able to do the aforementioned as part of the engagement with the experience. Ported into instructional design, the way in which instructional design platforms are chosen, may have a beneficial, or non-beneficial effect on participants, depending on the specificity of the affordances in the chosen medium. To expand with an example, using 3rd party platforms such as Facebook™, Twitter™, and Youtube™ as part of an instructional tool, without embedding them inside of another experience, may lead to participants watching content that is unassociated with course core objectives.

Can. The 'can' of look and feel, refers to elements of autonomy, which are, things that participants are able to do that add to experience immersion, while not necessarily imperative to the progression of the participant through the intended experience. Continuing with the *Fallout 3* example, while in different rooms, players can pick up items from one of 20 different item categories; *ammunition, armor and clothing, broken steel, consumables, crafting items, cut items, notes, house improvements, images, mentioned-only items, miscellaneous, Mothership Zeta, Operation: Anchorage items, point lookout items, quest items, skill books, Pitt items,*

unique items, bobbleheads, & weapons[1], and each of these items have a sub categorical list of their own. Many of which do not necessarily advance the story as it pertains to the successful completion of the game's core objectives. Ported into instructional design, the way that designers provide supplemental material, can suggest additional content in a way that, if engaging enough, participants can regularly consume as part of the experience. Conversely, if additional content is not cleverly integrated into instructional design, participants may not connect with materials that could potentially help with the overall engagement with course content.

Game World: Areas. 'Game world: areas', in video game design, refers to the overarching structure of an experience, that is, where participants engage with different parts of an experience. Often, games are categorized by increasing difficulty levels, but, these difficulty levels are embedded within different parts of the places that a player can venture to. Here, the different areas are usually theme-based, and tied directly to the overarching goals of the experience. Ported into instructional design, ensuring that each part of a course, often weekly-based, progressively connects, and challenges participants increasingly should be a critical part of planning the structure of an educational experience.

Game World: Level Progress. 'Game World: Level Progress', in video game design, refers to the specific navigational structure of an experience, that is how participants will advance through the different parts of the experience. This may be linear in nature, or, participants may be

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[1] Fallout 3 items. (n.d.). Retrieved April 19, 2016, from

http://fallout.wikia.com/wiki/Category:Fallout_3_items

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afforded the opportunity to explore different parts at their own leisure, in a non-linear manner. It is critical to note that, while video game design affords participants the illusion of non-linear experience navigation, the non-linear path of instructional design, still contains design-based linearity, through objective completion, or the implementation of currency, or completion criteria as means of keeping participants connected to the overall intended experience. Ported into instructional design, asynchronous and synchronous instructional design is well known, however, the nature of how the instructional design, when asynchronous instruction is used, needs to be articulated in a way that still connects participants to core curricular content, under the perception of asynchronous instruction. As no experience in a video game is truly non-linear, instructional designers, especially those who use multimedia, should be aware that the illusion of non-linearity is part of the instructional design process.

When it comes to instructional design, using multimedia, module 5 is of significance in the way that it is composed, first, calling on students to play a game that contains the theories that will be covered in the module, but, I've selected a game, The Room, that removes many of the details that avid game players would assume should be part of the design considerations – elaborate backgrounds, high-quality visuals, and perhaps other visually appealing items. The Room, is a simple concept – one is contained in a single room, trying to figure out the mysteries, and intricate storyline, contained within a single, locked box. The decision to include this game is intentional, for this game contains all of the successful elements of a good video game, without many of the common assumptions of what makes a good video game – keeping up with trending technologies. *The Room* has been ported to mobile phones, which means, it is capable of running on a wider range of compatible devices than newer devices.

Module 6 – Interactive Mechanics Development

Interactive mechanics development involve the specific detailing of what participants are afforded the ability to, and not to, do within the context of a designed experience. The sixth module is, typically, the most difficult in the course, as it calls upon participants, with potentially no prior knowledge of programming or game design, to consider affordances in developing interactive mechanics.

Gameplay Mechanics

The semiotics of gameplay mechanics are explored twice in this course, and this will be the first time participants are shown the details, though there was some initial foreshadowing in the previous module. Further, the semiotics of gameplay mechanics will be specifically addressed, using the following headers: *Rules/Affordances - Visible to Players, Rules/Affordances - Invisible to Players, Physics/Movement, In-Game Objects, Player(s') Actions, Player(s') Interactions.*

Rules and Affordances

The rules and affordances, in video game design, refer to the conditions under which the participants can participate. For example, in order for a player to be able 'to jump' the designer must afford at least two things: 1) something to jump on, in and around; and 2) the ability to jump. With aforementioned example, the *rule* is gravity, while the *affordance* is jumping. They are one in the same, though one cannot exist, without the other. This is one of the most complicated concepts in video game design, and, arguably the most important. The rules and affordances, in this course, have been broken into two sections; those visible to the player, and those invisible to the player.

Visible Rules. Visible rules, in video game design, refer to the tangible representation of an in-game concept, represented through multimedia. To expand, gravity and speech are some basic examples of rules in video game design. With the previous example, the rules act as 'containers', that is, the overarching representation of a core concept in a game – the core concept of interactivity with the multimedia elements of the game as they to the video game.

Visible Affordances. Visible affordances, in video game design, refer to the physical manifestations of the rules, or abilities, as they connect players to navigation through the video game world. To expand, gravity could afford players abilities such as walking, running, flight, and swimming; and speech could afford players the abilities such as 'talking' via in-game response selection. With the previous example, the affordances give players 'abilities', which are, the things that players can actually do within the predetermined 'rules' of a game, as they connect to the video game.

Invisible Rules. Invisible rules, in video game design, refer to the hidden representations of an in-game concept, expressed via computer coding, or design, represented through multimedia. To expand, with gravity and speech as visible rules, elements such as buoyancy, and pre-composed conversation mind maps, or, decision trees, are invisible. With invisible rules, players will never know how the world has been designed from a programming standpoint, without some specific decompiling of the video game experience. Further, the invisible rules are fixed decisions that video game creators make, which are congruent with the experience that the creator wishes to provide participants.

Invisible Affordances. Invisible affordances, in video game design, refer to the hidden 'abilities', which are, the hidden properties of what players are able to do. To expand, with gravity as an invisible rule, and walking as a visible affordance, the computer programmed

collision properties, and walk speed are invisible to players. Players may be able to see that their characters are afforded the ability to walk, but it is almost impossible, without programming experience, to know the nuances of the aforementioned.

Physics and movement. Physics and movement, in video game design, refer to the properties of items within the game world, and how those properties are manifest throughout the play experience. To expand, the properties of flying, driving, walking, running, and sliding, all involve the programming of in-game physics, which include collision detection. Collision detection refers to pre-programmed specification of how each in-game object behaves within the context of the digital space.

In-Game Objects. Objects, in video game programming, refer to each instance of an in-game item. To clarify, the in-game instances of multimedia, often visual, collide with each other as part of the interactive experience. Whether players are moving puzzle pieces, or driving a vehicle, there are objects involved in the interaction.

In video game design, careful consideration of what participants are afforded can, arguably, contribute to the engagement, motivation, and retention of intended pedagogical content. Ported into instructional design, online instruction, that is, engaging participants with multimedia involving web-based experiences, can allow for a higher frequency of student interaction with pedagogical content, provided there is careful consideration of the congruence between what participants are afforded the ability to do, in addition to how the multimedia itself aims to engage participants with pedagogical content.

Module 6 will engage participants by focusing on gameplay mechanics, that is, what options players will be afforded when playing a game. Here, affordance theory will be addressed within the context of video game design. For in designing what players *can* do, often, one must

also indirectly detail what players *cannot* do. This will be further highlighted in the game playing of *Braid*, a two-dimensional side-scrolling platformer videogame that changes known gameplay mechanics between different levels, calling upon players to consider new navigation strategies.

In this sixth module, participants are asked to articulate their game mechanics, follow up with colleagues to respond to feedback given from previous modules in the online space, and spend some time revisiting links between their newly created game mechanics, and the previous sections they've written. The semiotics of game mechanics, the affordances, in video game design are critically important to instructional design, because it involves the structuring the world that participants interact within. The cultural models of game mechanics, how we afford participants engagement, can inform the instructional design discourse because it calls on content creators to consider the intent of incorporating specific multimedia instructional design approaches, rather than seek trending, or current technologies.

Module 7 – Interactive Monetization Mechanics Development

Interactive monetization mechanics describe how designers afford participants engagement, while reserving anticipation, gratification, and advancement, as part of the in-experience mechanics, cleverly adding periodic payment, or delay in engagement experience, as part of the design - this is the core focus of module seven.

Monetization Gameplay Mechanics

In this module, participants are connected to emerging monetization strategies used by King™ and other video game production companies as a means of displaying how monetization models can connect to the structure of a video game's enjoyment, progress, and completion.

An introduction to semiotics of monetization in video games is provided in module 7, though this week intends on giving students extra time to consider the other mechanics covered in the previous module. It also serves as an historical and statistical module for participants, outlining some of the trending video game design models such as the 'freemium' model, which affords free game play, with the aforementioned monetization strategies; 'social gaming', which connects the monetization model to web 2.0 technologies for the purposes of drawing in more participants; 'virtual currencies', which afford participants the ability to 'spend' and 'collect' a non-physical currency as a means of achieving progress; and 'embedded advertising campaigns' as part of design in mobile development (Shokrizade, 2013). Some statistical information surrounding how much revenue is collected from the 'freemium' model is also detailed in this module.

When it comes to the semiotics and cultural models of monetization, there are basic concepts that form the foundation of many video games using monetization mechanics. These include *coercive monetization, premium currencies, skill games, money games, reward removal,*

progress gates, soft boosts, hard boosts, and *ante games* (Shokrizade, 2013). These concepts are also able to add to the instructional design discourse, though the implementation may seem more leaning toward financial gain.

The cultural model of monetization is relatively new in video game design, as it is a direct result of a newer, iterative method of content distribution. As such, this module introduces participants to one specific monetization model as it pertains to some puzzle-based video games.

The semiotics of the monetization model covered in this module are significant, because the details of this cultural model highlight how some game designers have been able to weave in rules that call on participants to 'have to do' certain things in order to progress through the experience. The small caveat to this method of monetization is that, while the affordances of a purchase are available without a purchase, the path to obtaining those affordances can be made to appear as though it would be much simpler to purchase affordances.

Coercive Monetization. Coercive monetization, in video game design, refers to an idea of compelling players to participate in a game through the purchase of some kind of helpful in-game tool, which often allows them to acquire in-game affordances faster than participants who wish to obtain those same affordances without the use of money. This is evident in free-to-play games such as *Candy Crush Saga™*, *DOTA 2™*, and *Duelyst™*. In the aforementioned examples, the tradeoff for acquisition of in-game affordances is time, in that; players must spend quite a bit of real-life time to acquire the same affordances of those who choose to purchase affordances. Ported into instructional design, coercive monetization can be effective in instructional design, without the use of money, were the affordances given to participants who choose to put in extra real-life time into consuming materials. In this example, however, there

must be some in-game tangible way for the affordances for participants who choose not to put in time, to see the benefit that time can have on course performance.

Premium Currencies. Premium currencies, in video game design refer to the use of using 'real money' to purchase an in-game currency, specific to the game. This technique is a means of persuading players to blur the departure of funds between 'real money' and 'fake money'. Ported into instructional design, the creation of an in-course currency, though difficult, could have successful scholastic integration, provided there were benefits to the currency within the context of the institution.

Skill Games and Money Games. 'Skill games', in video game design, involves the direct tie-in of user ability, within the context of the experience, to progress. Money games refer to the acquisition of progress, or progressive items, through purchase. It is common that participants usually wish to progress through an experience using skill, as that was traditionally known core objective of game design, and game play. Ported into instructional design, and removing money from the instructional design, this coercive mechanic may help instructional designers craft skill-based paths for participants, making clear objectives, and consumable feedback, based on how participants can progress through curriculum.

Reward Removal. Reward removal, in video games, refers to the initial provision of all of the suggested tools, or affordances needed for successful progression, with an eventual withdrawal of those same tools, forcing participants to work through a different means, to reacquire desired tools. This includes the aforementioned coercive monetization strategies, as a means of reacquiring the same affordances, initially provided as a 'preview' for potential easier experience navigation. Ported into instructional design, reward removal could exist in the form of example provision – giving participants an example of what desired outcomes for the experience are,

without giving explicit details of how one can acquire the desired outcomes, without disclosing pertinent information provided through full course navigation.

Progress Gates. Progress gates, in video game design, refer to points in an experience, where participants cannot proceed unless certain conditions are met. Progress gates are often applied as a means of requiring participants to engage in certain tasks, or display a certain level of skill in a measurable way, before being allowed to progress. Ported into instructional design, the use of prerequisites in course design are useful, but, finding ways to ensure that participants engage with materials as part of progression may better contribute to engaging with those materials in the ways desired by the designer.

Soft and Hard Boosts. Soft boosts, in video game design, are in-game affordances that have a one-time use. For example, a game designer could create an experience allowing an hour of game play to generate an in-game currency, which then can be used, once, to unlock progression. In this example, the use of the currency for progression is no longer available. Conversely, a hard boost is an in-game affordance that is persistent, in that, it remains applied for the remainder of participation, or until it is converted into another hard boost of some kind. For example, a video game may allow participants to navigate through an experience, persistently faster, once a certain in-game level is reached. Ported into instructional design, affording participants increasing, and persistent access to useful materials once certain conditions have been met, could be instrumental in the learning experience.

Ante Games. Ante games, in video game design, refer to the designing of an experience where participants can see status updates of other players, initially based on skill, where progression subtly shifts to a money game. Ported into instructional design, a progress portal for participants, where progress is shown, as it connects to the consumption of specific materials, may help

motivate other participants to consume content desired for consumption by the instructional designer.

These coercive monetization approaches can serve as a code-based method of demanding attention to certain goals and details, while still engaging participants as part of an experience.

Module seven is designed to be a 'cool down' week after the gameplay mechanics work done in the previous module. The concept of considering all the potential affordances in an interactive experience can be one of the most difficult things for participants to understand, as this is the concept that separates the video game players, from the designers. In this module participants are asked to play two games – one that does not feature monetization mechanics, and one that does. This is a purposeful historical module, as the two games used are from different time-periods; the 2007 game *Puzzle Quest: Challenge of the Warlords,* is a puzzle-based action game with traditional role playing game features as a level-up system for level progression. Next, participants are asked to play*, Candy Crush*, another puzzle-based action game with in-app purchases as an option for level progression. The second game that participants are asked to play, *Candy Crush*, features the same sophisticated monetization models covered in this module.

Module 8 – Initial Engagement Content Development

When introducing participants to concepts, in a multimedia-based or interactive environment, the information that informs, excites, and initially educates participants, can contribute to the perceived autonomous experience. This is the core focus of the eighth module.

In the eighth module, participants are responsible for crafting their ideas in a form that would more closely represent what the end-user will see. Here, participants will show their peers examples of their actual in-game content, as a means of getting feedback from the perspectives of other potential consumers, in addition to considering how to articulate ideas differently, to connect with their intended target audiences.

Level Design: Synopses and Introductory Materials

The semiotics of synopses and introductory materials are detailed in this module through gameplay, and real-world examples of synopses and introductory material. Participants are responsible for playing through the first two hours of *Bastion*, an action role-playing game that features synopsis and introductory material as part of the story, via the initially unnamed narrator. Participants are next shown different examples of synopses and introductory content from varying video game genres, each displaying information in ways that are typically specific to game genre.

Module eight scaffolds participants through the content in this module, requesting that they incorporate the persuasive technologies covered in Module 2 into this section of the game design document. The difference here is that it must now be applied practically, in text form, as the end-user will see it appear in game.

In this module, the semiotics of multimedia, from the playing of *Bastion*, and in the six different representations of synopses and introductory material, can inform the instructional design

discourse, specifically because the varying nature of the use of multimedia within the context of

these two areas, designed to educate players, are genre-specific, though they each intend on

educating players as part of the experience.

Module 9 – Persistent Engagement Content Development

Level design, including *game objectives*, *level details*, and *player path*, are elements in video game design that succinctly define what tasks participants need to complete, within a specified context, as means of progressing through a designed experience.

Level Design: Objectives, Level Detail, and Player Path

In the ninth module, participants will be responsible for outlining player objectives, suggesting details within each of the conceived levels, and outline which path the player must take. This will be done in textual form, and also in the online wiki environment, where participants, and their peers can solicit and distribute feedback.

The semiotics of objectives, level detail, and player path are detailed in this module, through the playing of *Parallax*, a game that takes core concepts of this module, displaying them in a first-person puzzle environment. Specifically, 'objectives', in *Parallax*, are contained within the title of each video game stage, in a single overview snapshot that, sometimes, suggests the core objective of the level in question. The semiotics of 'objectives', within the context of video games, are further highlighted in the online sections of module 9, showing how different video games display objectives to players, highlighting objectives as part of the user interface. The semiotics of 'level details' are shown to participants using visual images of full scale maps, and relevant level design details, as they were created within the context of *Chrono Trigger*, a classic 8-bit title, well known for its level design and rich story. Next, participants are shown different interpretations of player path, that is, how game progression can be monitored within the context of a game, using different genres as a means of highlighting the potential for liner, or non-linear player path development. Participants are then asked to explore the semiotics of these elements through an online article that discusses different approaches to level design. These articles

include text and imagery as part of the consumption process. Finally, participants are asked to create content, distribute it via the interactive wiki interface, and discuss the theoretical components found in Parallax, as a focal point of the discussion in the online space surrounding game design.

The semiotics of the objectives, level detail, and player path design can help to inform the instructional design discourse in the way that pertinent data are specified, displayed, and iteratively detailed for participants, as a means of providing constant feedback to participants – showing progress in contrast with objectives consistently and concisely.

Module 10 – User Interface Structural Design

The structure of the interface used in video game design, that is, where content will be placed, the on-screen 'real estate', and how it is used – is the core focal point of this module.

In the tenth module, participants will create the structural elements of their user interfaces. Specifically, participants will begin to draw out *where* on-screen menus, pertinent game data, and player information will be displayed. Note, this will not include the content itself, rather, it is an exercise in articulating how game design calls on creators to use on-screen real estate to educate, inform, and engage players.

User Interface Design

The semiotics of interface structure are detailed in four main areas, *non-diegetic*, *spatial*, *meta*, and *diegetic spaces*, taking place in the game world, and/or in the game's narrative (Stonehouse, 2014). This module explores the aforementioned areas, calling on participants to design user interfaces while considering incorporating the four core elements of interface design. The semiotics of the interface structure will be articulated under the following sub headers: *User Interface: Menus*, and *User Interface: Gameplay*. These two elements are separated, as one has to do with the external player, that is, how the game functions within the context of a playback device, while the other connects to how the player remains immersed in the created experience.

Module 10 calls for image creation that mimic the multimedia assets that address user experience design within the context of video games, storytelling, aesthetics, and content navigation. It marks one of the first areas of the course where participants overtly commit to visual design decisions as part of the online discussion.

The semiotics and cultural models found in this module are most useful to instructional designers who create content, as part of their teaching practices.

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Diegetic space. Diegetic space, in video game design, refers to the items that the player can connect to through interaction. This can apply to elements in the video game world, in addition to user interface items. Similar to the visible affordances and in-game objects from module 6, diegetic space, here, should be crafted in a way that contributes to the themes, content, and objectives of the experience.

Non-diegetic space. Conversely, non-diegetic space, in video game design, refers to the items that the player cannot connect with. Similar to invisible affordances from module 6, non-diegetic space, here, should be constructed in a way that still contributes to the themes, content, and objectives of the experience, even though the player will not be afforded the ability to interact with those elements. For example, the borders for on-screen lines that surround the in-game menus should be coloured and themed in a way that still contributes to the overall engagement goals of the experience.

Spatial design. Spatial design, in video game design, refers to the ways in which in-game real estate is used as a means of subtly providing pertinent information to the participant, without breaking away from the overall experience. An example of this would be a floating instruction of a particular action to take, which appears directly over the in-game item that the participant should apply that action to.

Meta user interface elements. Meta user interface elements, in video game design, refer to persistent on-screen items that inform the participant as part of the immersive experience. For example, in most racing video games, where the car is shown from the outside, there is a persistent on-screen speedometer which displays the information that drivers would be provided while on the inside of the vehicle. In this example, the necessary information, speed, is

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constantly given, and players are provided necessary information as part of the user interface, which ignores the real-world sensibility of the way in which that information is provided.

In this module, user interface is of primary focus. It is in learning about the different affordances of user interface design that participants learn how participant attention can be directed within the context of a game. The information provided to participants as part of these interfaces, help to craft a cohesive experience for content consumers, as they are able to self-monitor their own progress, which adds to the idea of creating autonomous experiences using multimedia as part of interaction. Ported into instructional design, these elements call on instructional designers to consider how the multimedia elements, within the context of instruction can contribute to the engagement and pedagogical experience.

Module 11 – User Interface Content Design

User interface content design, that is, how experience designers populate the user interface containers, once the physical 'real estate' has been allocated – is the core focus of this module. In the eleventh module, under the research-creation framework, participants are now asked to populate the content containers created in the previous module, while considering Jakob Neilsen's 2002 usability model, which suggests 5 quality components - *learnability*, *efficiency*, *memorability*, *errors*, and *satisfaction* (Nielsen, 2012). Next, participants explore the ramifications of small text in modern video games, by reading through an online forum discussion surrounding some of the issues presented to participants, when interface content is ineffectively implemented. This module will require iterative design thinking, as there are limits to how much text one can include, particularly from a consumer standpoint, in addition to a populating content in a way that both informs and engages participants.

User Interface Usability Model

The semiotics and cultural models of interface content can inform the instructional design discourse, as it calls on designers to consider succinct ways of presenting content that engages and informs, while not overwhelming participants.

Learnability. Learnability, in the context of user interface content design, refers to the time that it takes participants to complete simple tasks once the content provided as part of the design has been engaged with. Here, designers are called to understand the conventions of the selected genre, or topic, as a means of making succinct design decisions. For example, in the *Role Playing Game* video game genre, using the abbreviated text *HP* in order to display how much 'health power' a player has is a both a cultural model, as well as a succinct on-screen textual label for that information.

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Efficiency. Efficiency, in the context of user interface content design as part of video game design, refers to how participants proceed through an experience once a core concept has been introduced as part of the interface. In the HP example, attrition is a possibility for the participant if the concept of health power as part of the experience is difficult to understand. Therefore, a content container of a visual representation of HP, often a container filled with colour, or a numerical fraction, is usually placed alongside the HP acronym.

Memorability. Memorability, in the context of user interface design as part of video game design, refers to how quickly and efficiently users can reconnect with the concept and conventions of an experience, through the way that the user interface is designed.

Errors. Errors, in the context of user interface design as part of video game design, refers to an ability to monitor the missteps that participants make through the design, in addition to how simply participants can correct missteps, articulated through the composition of the designed interface.

Satisfaction. Satisfaction, in the context of user interface as part of video game design, refers to how enjoyable the use of the design is once completed for the end-user, the participant.

Ported into instructional design, these 5 quality components of user interface design can be useful for experience creation, as it connects directly with potential participant engagement. Understanding these key components as part of the creation or selection of an experience that includes multimedia as part of instruction can have a critical impact on the way that content engages participants. When creating instructional content, instructional designers who choose to create content for participants could benefit from understanding just how usability can help or hinder experiences. Further, if multimedia production is not part of the instructional design, then

selecting finished works, or experiences that most effectively include the 5 quality components,

as they pertain to course content, should be considered.

Module 12 – Medium Selection

Medium selection, that is, which form an interactive experience will be housed, is the core focus of this module. In the twelfth module, participants will research and detail which platform they believe their game should be coded for, published, and played on.

Once participants decide on a platform for their game, which may include personal computers, phones, tablets, and/or video game consoles, they may need to make significant changes to areas that platform choice may impact. This is also a chance for participants to start thinking about intended audiences, which is often a direct result of platform choice.

Video Game Platform Selection

The semiotics of platform are explored in this module through the following areas; *intended platform, install base, relevant platform features, demographic, downloadable content (DLC) intentions*, and *Patch Management*. Further, this exercise expects participants to explore some of the industrial barriers that are present in video game design and development, as part of the justification for the aforementioned areas.

When it comes to instructional design, the semiotics and cultural models of video game design can inform instruction that incorporates multimedia, as it calls on instructional design to consider pedagogical content, participants, demographics, contingency plans for learners, and how to deal with those contingencies.

Intended Platform. Intended platform, in video game design platform selection, calls for the early consideration of the way in which participants will connect with an experience from a technical standpoint. To expand, multimedia can be consumed in varying ways, and the early articulation of an intended audiovisual medium provider will help shape the way that the concepts and pedagogy can be most effectively delivered. Critical to platform selection is the

detailing of how the selection of the medium can best articulate the intended experience objectives.

Install Base. Install base, in video game design platform selection, refers to how many participants currently have, or will have access to the way that the intended designed experience, prior to release. Further, if there is already an affinity or familiarity with the content or method of distribution, install base requires that designers understand what participants expect as part of the experience.

Relevant Platform Features. Relevant platform features, in video game design platform selection, calls on designers to make note of, and develop content based on specific features afforded by the intended distribution platform. Further, it calls on designers to work with particular medium affordances as a means of distribution. To expand, understanding the limitations and affordances of the distribution method of an experience can help designers, who wish to engage participants using multimedia, to select a platform that is appropriate for the type of experience that best matches the content, as it connects with the intended engagement goals of the designer.

Demographics. Demographics, in video game design platform selection, refers to the statistical representation of a particular group, categorized by varying elements, often determined by the designer. Demographics are particularly important in the selection of a distribution platform, as it typically takes into account the current adoption rates of intended distribution methods, but, by default, it calls on designers to articulate intended audiences and expected prerequisites prior to engagement. As such, information for participants regarding the expected prior knowledge levels can be explicitly provided, allowing participants to see a representation of expected engagement levels.

Downloadable Content (DLC) Intentions. DLC intentions, in video game design platform

selection, refers to whether or not updated content, can be pushed to participants on a specific

platform via a software update, or, in some cases firmware updates. Here, content is usually

pushed to users as a means of enhancing an already launched product.

Patch Management. Patch management, as it pertains to video game design platform selection,

refers to a predefined method, protocol, or procedure for pushing content changes to users. Also

known as content management, this is often considered a contingency plan for designers, who

need a means of changing critical design flaws, were experience errors encountered post-launch.

Module 12 calls on instructional designers to consider how final content can be packaged

as part of the design process. Critical to platform discussion, is the consideration of *why*

production-based decisions are made, as they connect to the intended experience. The semiotics

and cultural models of platform selection are portable to instructional design, in the way that

designers are called to articulate design decisions as part of curricular construction, which

includes multimedia.

Module 13 – Experience Development Tool Selection

The experience development tool selection, which involves what production tools will be used to craft an engagement experience, is the core focus of this module.

In this thirteenth module, participants will investigate how their game can be built, or, coded, from a computer programming perspective. Here, investigation must be done to find a game development platform that is congruent with the needs of the affordances, and multimedia design decisions outlined in the game design document, constructed throughout the past modules.

Video Game Development Engines

The semiotics of game development engines are expressed in this module by highlighting games that require computer programming knowledge, or not, as a means of further highlighting the different roles involved in the video game design process. Further, this module shows participants that some game design engines are better suited to specific genres, allowing them to look at game development engines that match the concepts that they have crafted thus far.

In this module, to assist participants in choosing an appropriate game development engine, tutorial videos for some of the more popular video game development engines are included, which feature the same semiotics of multimedia in instruction that this creation-as-research thesis wishes to highlight.

Module 14 – Cohesive Experience Design

A cohesive experience, a culmination of the work all of the researched, developed, and produced content, is the core focus of this module.

In this fourteenth module, participants are responsible for compiling their game design document as a single package, including the multimedia elements created, as part of the course process.

Game Design Document: Final Submission

The semiotics of game design documents are detailed in this module, through the anatomy of a game design document, which include; *elimination of hype*, *clarity and certainty*, *ease of drafting schedules and test plans*, and *varying from the guidelines* (Ryan, 1999). Next, participants are shown just how expansive a detailed, technically oriented game design document can be, once the specific details of the video game have been established. Participants are also provided various completed video game design documents from the industry, in addition to templates that are freely available for viewing and usage from those connected to the video games industry.

The semiotics and cultural models associated with this module can inform the instructional design discourse in the way that consideration for content, as a cohesive, explained, summative document, is submitted. The game design document, encapsulates all of the experience design decisions of the creator, along with intended results, as part of a package.

For instructional design, the planning, production, and delivery of a document that explains the instructional design concepts contained with this creation-as-research thesis, could help instructional designers efficiently plan learning goals, gains, and engagement experiences as a means of expanding the multimedia instructional design discourse across different disciplines. The justifications and reasoning behind the instructional design, or, game design, can help

creators reflect on the congruence between intended goals, as afforded by the different

affordances provided by multimedia – through its inclusion, or omission, in instruction.

Module 15 – Final Content Assessment

The fifteenth module will be reserved for the collection and marking of submitted assignments. The submitted assignments will vary in size, but the best ones will be between 30 – 80 pages. Evaluation time is necessary in order to provide the adequate feedback to each video game design document.

Future Research

One core difficulty in the suggestion of media production proficiency is that many instructional designers are not necessarily also programmers, web designers, or online collaboration experience curators. That said, it would be useful for instructional designers to consider how, in addition to creating content, engagement through the theories, semiotics, and cultural models addressed in this paper can be articulated, and built into pedagogically sound instruction.

The *Gaming, Interactive, and Multiplatform Media* course articulates the semiotics of many video game theories, as part of its design. Further, it takes the cultural models of video games and media production, through the created videos as part of this creation-as-research thesis. The theoretical limitations of this project are contained within the interpreted outcomes, for participants, as they align with my intentions. Future research in this area will track the levels of user engagement with content, just as is the case with many video games, before they make it to the widely available marketplace.

Conclusion

The literature in video game design has no shortage of exemplar displays of matching technology to pedagogy; and this should serve as the starting point for educators who wish to incorporate multimedia in instruction – this is what will enhance the multimedia instructional design discourse in education, communication studies, and other disciplines unfamiliar with the semiotics of multimedia. With all of the content covered in this paper regarding the importance of semiotics in multimedia in the context of instructional design, video games, and their theoretical underpinnings, provide the best examples of binding theory and practice, through simulated experiences. This was detailed in all four sections of this creation-as-research dissertation.

Though the semiotics of the term multimedia are nuanced, many of the core terminologies, particularly those which connect with content creator intention, stem from the media production discipline. As such, it would be beneficial for educators, who wish to include multimedia as part of instruction to be cognizant of how different elements, including implementation approaches, are used in the context of engagement. The hope was that the four parts of this creation-as-research dissertation gave enough examples through the varying iterations of media production to cater to different fields of instruction.

McLuhan's laws of media allow media production to take on a different meaning when it comes to video game design, as the production of content involving multimedia, can add affordances to experiences, allowing participants to engage with specific parts of multimedia in through interactivity, which connects with participant needs, defined by the designer. The video

game medium pushes McLuhan's laws in directions that question both mechanical technologies, broadcasting models, and socio-political constructs, but these constructs must be experienced via the medium in order for the impact to be congruent with that of the experience designer. Affordances in instruction, can use multimedia physical, logical, and cultural constraints, which designers can use to help shape how instruction matches the pedagogical desires of the instructor, through the design process, and delivery. One example of matching technology to pedagogy would be simulation, where the intent of design is to create experiences that connect skill sets with in-experience objectives, affording participant interactivity with experiences that closely match the intended pedagogical objectives. Connected to simulation, video games can also create experiences that match content with pedagogy specifically, and intentionally through multimedia. The dissertation presentation of this project attempted to do just that with the design, timing, and delivery methods used to engage participants with content. Further, it is rare that design decisions made in video game design are afterthought, as each decision will have a cumulative effect on how the experience will be interpreted.

To that end, the multifaceted learning needs should be considered from engagement and cognition contexts. To expand, video game designers create content which, generally, caters to a specific demographic. It would be useful for pedagogy which contains multimedia to understand the different engagement properties used in specific contexts.

The creation-as-research methodology used in this thesis best interprets the nuances of multimedia within the context of instruction through the four different iterations of this project: The written document, the online course, the 15 summative videos, and the final presentation.

The *Gaming, Interactive, and Multiplatform Media* course defines the semiotics of multimedia within the context of instruction through the very design of the course, which is an

Internet-based, asynchronous web space, affording users the ability to engage with content, upload content, and participate in online discussions via a wiki space. The aesthetic and navigational properties of the online space takes into account the ways in which participants who possess media literacy skills can understand how the content is laid out as part of the structural and procedural design of the course.

Next, and most pertinent to this discussion, is the interactivity design approach used to deliver content, in which each course week does two core things; 1) asks participants to learn a concept; and 2) asks participants to create some tangible interpretation of understanding of that concept in a game of their own design. For example, in module 1 participants are asked to interact with specific semiotic terms by consuming text and video, process an idea of their own creation that includes the concepts covered in the module, then generate an online discussion that includes the posting of the created content as a means of engaging with peers in an asynchronous space.

It is important to note that, the semiotics of multimedia within the context of instruction are detailed as part of the theories covered in the *Gaming, Interactive, and Multiplatform media* course. To clarify, the creation-as-research methodology is part of the selection of the concepts used in the course, which are portable to educational discourses.

Module 1 Conclusions

Module 1 discusses 8 core issues of game design, which are portable to instructional design including: *issues, game design, technology, the iterative process, systems thinking, storytelling, visual art, and sound design* (Steinkhuler et al., 2012), which detail how video game designers, and also instructional designers can think about the affordances of the medium, in

addition to how to produce content for a specific medium. Here, the semiotics of multimedia are within the context of how designers consider designing using multimedia. In this module, the aforementioned issues are further highlighted in a unidirectional web-based 10 minute video, which summarizes the theories discussed in this module within the specific context of the video game design industry.

Module 1 Theoretical Underpinnings: Media Literacy

The theoretical underpinnings of this module include Herbert Zettl's four-level media literacy model, where this module actually is responsible for teaching the participants how they can engage with the online platform itself. As such, the authentic engagements reflect this, by requesting that all affordances in the course itself are accessed in the first module – consuming an online video, producing a multimedia artifact, working on the iterative video game design document, and reflecting on these processes with course peers via an online interactive space.

Module 2 Conclusions

Module 2 discusses 7 persuasive technologies, which are highly portable to interactive experiences, which include: *reduction, tunneling, tailoring, suggestion, self-monitoring, surveillance, and conditioning* (Bogost, 2007), which detail different approaches to design, which shapes intent into the design process – creating experiences that will absolutely allow participants to engage in ways specifically defined. Note that, in this module, the aforementioned technologies are offered for participants to experience, through the playing of a video game, *Limbo*, as part of the designed experience. Here, the intent was to link the interactive, medium specific semiotics of persuasive technology to the curriculum through a tangible example of the

theories, which are later referenced as part of the same module. To clarify, the module itself uses the 7 persuasive technologies on participants as part of the designed experience.

Module 2 Theoretical Underpinnings: Simulation

The theoretical underpinnings of this module include multimedia in simulation by Collins and Halverson's 2009 descriptions of simulation, where matching pedagogy with technology, storytelling as method, and the ability for participants to see themselves within the context of the experience are a critical component of learning and transfer of knowledge into practical settings. In this case, module 2 is the first module where participants are to engage with the theories via simulation, and then use these same theories to build the game that they have chosen to create as part of the course.

Module 3 Conclusions

Module 3 discusses balance within the context of designed experiences, which considers the cognitive load of participants via the weighting of in-experience elements, which include: *balance, depth, viable options, fairness, asymmetric gameplay*, and *symmetric gameplay* (Sirlin, 2015). This module focuses on how to provide variety for different types of participants via the inclusion of varying multimedia-centered design decisions. Note that, this module asks participants to play a co-operative game called *Freestyle 2: Street Basketball*, which requires that participants engage with the 6 elements of balance, before engaging in an online discussion that discusses those same elements within the context of the video game, as it was experienced by the participants.

Module 3 Theoretical Underpinnings: Learning & Cognition

The theoretical underpinnings of module 3 include cognitive load theory and learning theories by Sweller, van Merrienboer, and Paas's 1998 descriptions of how we learn, and the cognitive elements connected to learning. These components of learning are directly linked to balancing interactive and simulated experiences which include multimedia as part of that experience. The selection of an online 6 player game emphasizes the criticality of balance within an experience, as the components of balance are amplified when more participants are involved in an experience.

Module 4 Conclusions

Module 4 discusses character development in designed experiences, which details how to engage participants through character-based simulation. That is, designing an experience that calls on participants to play the role of a character as part of the engagement with concepts in a space specific to the in-experience character. Note that, this module asks participants to play *Thomas Was Alone*, a game that attributes real-world characteristics to polygons, as a means of engagement, while detailing the disconnect between the video game medium and perceived necessity for high fidelity multimedia as part of engaging participants with content.

Module 4 Theoretical Underpinnings: Multimedia Learning Theory

The theoretical underpinnings of module 4 include dual channel theory (Paivio, 1986; Baddeley 1986, 1999) and multimodal theory (Mayer, 1997; Kress, 2001) detailing how aural and visual information, and how it is presented can allow instructional designers to 'teach twice' depending on how they maximize aural and visual information as part of a simulated experience.

Module 5 Conclusions

Module 5 discusses setting development in designed experiences, which details in-experience contexts, as well as introducing participants to affordance theory, through the different designed contextual affordances, via the following: *Setting Game World (context), Game World (look and feel), Tangible, Non-tangible, Game World (areas), Game World (level progress)*. Note that, this module asks participants to consider multiple context-based affordances, but asks for the game play of *The Room*, an intricate puzzle-based story game that takes place entirely in a single, locked room. This game asks participants to consider creating engaging experiences without the elaborate settings that many players assume are synonymous with good game design.

Module 5 Theoretical Underpinnings: Interactivity Levels

The theoretical underpinnings of module 5 include Abdul-Rahman & Boulay's 2014 work on interactivity levels, where the simulation of playing The Room, involves low element interactivity (LEI) via simple point and click navigation, but, also high element interactivity (HEI) via the nature of the intricate puzzles that are tied to the game's progression mechanics. Here the theoretical underpinnings are also tired directly to the content that participants need to develop as part of their game design document – the game setting.

Module 6 Conclusions

Module 6 discusses experience mechanics design, which details how an experience can be interpreted by a participant, in addition to the rules and affordances for each intractable in-experience element. This is done using the following concepts: *Rules/Affordances - Visible to Players, Rules/Affordances - Invisible to Players, Physics/Movement, In-Game Objects, Player(s') Actions, Player(s') Interactions.* Note that all of the aforementioned are covered in the

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game playing of *Braid*, a two-dimensional side scrolling platformer game that plays with the aforementioned elements as part of the design process, requesting that participants relearn how to engage with the game at the start of each new in-game world.

Module 6 Theoretical Underpinnings: Learning & Cognition

The theoretical underpinnings of module 6 include Sweller's 1994 work on learning and cognition, where difficulty levels are artificial in nature, and that the weighting of elements is what determines retention. This is expressed in the course via this 6th module, the most difficult module in the course, which is postponed until module 6 so that participants don't see it as the most difficult until they proceed 3 modules further. The rules and affordances of game design require the most succinct and explicit detail in order to craft an experience congruent with design, learning, and cognition goals. The next model expands on game mechanics, calling on the expansion of concepts detailed in this module – this content is visited twice in the course, with good reason. This is further articulated in the multimedia experience that I created as part of this module – an online video that explains rules and affordances within the context of a fighting game.

Module 7 Conclusions

Module 7 expands on the previous experience mechanics, but adds monetization structures into the conversation as a secondary consideration of in-experience affordance design. This is done by exploring the following concepts: *coercive monetization, premium currencies, skill games, money games, reward removal, progress gates, soft boosts, hard boosts,* and *ante games* (Shokrizade, 2013), where these considerations would be made in addition to the decisions made as part of the games interactivity design. Note that, the semiotics of this module

are explored, two fold, via two different games. These games, Puzzle Quest: Challenge of the Warlords, and Candy Crush Saga, are similar in design, though only one of the games include the monetization mechanics contained in this module. Participants are asked to engage in an online collaborative wiki, to discuss the differences between the two games, and what can change when monetization becomes a part of the design.

Module 7 Theoretical Underpinnings: Presumptive Meanings

The theoretical underpinnings of module 7 include Levinson's 2000 work involving presumptive meanings – which include utterance-type and utterance-form. Where the former, in this module, are articulated through the surface-level use of the 'monetization mechanics' term, but, the utterance-form articulation of that same term are explored via an online video of a developer's conference, where game developers articulate the contextual nuances of the term. Further, the Ramin Shokrizade article which expands on those nuances within the context of the game that is played in this module as part of the authentic engagements of this module, expand on the utterance-form further.

Module 8 Conclusions

Module 8 discusses the methods used for introducing participants to new content. It explores *synopses* and *introductory materials* as core concepts in this module. These concepts are further explored via the game playing of *Bastion*, which uses a narrator as a means of articulating the two core concepts in this module. As audio is the primary distributor of introductory and synopsis material, the intend is for educators to not be so focused on the form of the content, via multimedia, but the congruence between the way that messages are delivered and the designed themes, objectives, and pedagogical goals.

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Module 8 Theoretical Underpinnings: Cognitive Overload

The theoretical underpinnings of module 8 include cognitive overload (Baddeley, 1986, 1999; Chandler & Sweller, 1991; Jadin, Gruber & Batinic, 2009; Derry, Hmelo-Silver, Nagarajam, Chernobilsky, & Beitzel, 2006; Plonka, Sharp, Van Der Linden, and Dittrich, 2015) detailing just how learning can be catered to by understanding participant learning levels, and matching presentation content to that perceived learning level. This is further explored in the content that the participants are responsible for creating as part of this module – the synopses and introductory materials for their own games. Here, the specific understanding of the aforementioned theoretical underpinnings is paramount.

Module 9 Conclusions

Module 9 discusses persistent engagement content, that is, the way in which *objectives*, *level details*, and *player paths* are articulated in-experience. This is further explored through the game playing of Parallax, a game that explains the terms from this module in a tangible way. This module explores iterative design as part of the consumption process, in addition to the development of in-experience scaffolding of content and interactivity.

Module 9 Theoretical Underpinnings: Core Constraint Categories

The theoretical underpinnings of this module include the core constraint categories explored by Norman in 1988, where three constraints are afforded those who wish to create experiences incorporating multimedia – physical, logical, and cultural. This module involves first, knowing one's own limitations of software, then understanding one's own limitations on

software usage, and then understanding the cultures that are tied to the chosen genre, as a means of remaining congruent with cultural expectations.

Module 10 Conclusions

Module 10 discusses user interface design, which is, how to create experiences that teach through content container shape and positioning, via the following theories: *non-diegetic*, *spatial*, *meta*, and *diegetic spaces*, taking place in the game world, and/or in the game's narrative (Stonehouse, 2014). These theories serve as a framework for designing 'where' in-experience content can go, but not the content itself. This module takes the aforementioned usability concepts and calls on designers to consider how to best use medium space, as part of the pedagogical and engagement experience.

Module 10 Theoretical Underpinnings: Interactivity

The theoretical underpinnings of module 10 include descriptions of interactivity from Sassure in 1974, and 1983, where interactivity is thought of, and designed as, both a property and an activity. The suggestions here connect directly to the design of the structure of a user interface within the context of an experience, because designing interactive 'real-estate' containers, by default, assumes that interactivity will be a part of the design process.

Module 11 Conclusions

Module 11 discusses user interface content design, that is, what media will populate the content containers detailed in the previous module. This is done via *learnability*, *efficiency*, *memorability*, *errors*, and *satisfaction* (Nielsen, 2012), where consideration of how to create content that caters to the aforementioned usability model elements.

Module 11 Theoretical Underpinnings: Form versus Function

The theoretical underpinnings of module 11 include Steinkuehler, Squire, and Barab's 2012 work describing form and function, suggesting that the video game medium, form, can be designed to unpack core concepts, function, so that goals and concepts from an experience can be better articulated. This is further seen in Neilsen's aforementioned user interface elements, but, the participants themselves will need to follow those guidelines as a means of immersing users within the context of their created experiences.

Module 12 Conclusions

Module 12 discusses medium selection, calling on designers to consider *intended platform, install base, relevant platform features, demographic, downloadable content (DLC) intentions*, and *Patch Management*, as part of the design process. Here, it behooves experience designers to consider how they intend their audiences to connect with created content, and how to diagnose, address, and fix potential issues, if discovered.

Module 12 Theoretical Underpinnings: Four Laws of Media

The theoretical underpinnings of this module include Marshall McLuhan's 1988 detailing of the questions that should be asked when selecting a medium for an intended message. Participants in this module are asked to select a publishing platform for their games, but are also required to substantiate those decisions. The questions of what a medium should enhance or intensify, render obsolete or displace, retrieve from previously obsolesced, and produce or become when pressed to an extreme, are all asked of course participants via the aforementioned design intentions which must be articulated as part of the authentic engagement found in this course.

Module 13 Conclusions

Module 13 discusses development engines, which are, the core tool that game programmers use to develop video games. Ported into instructional design, this module calls on instructional designers to select creation tools that are congruent with the learning environment they wish to create, congruent with their intended learning goals, rather than selecting popular, or simple-to-use distribution methods.

Module 13 Theoretical Underpinnings: Cultural Models

The theoretical underpinnings of module 13 include the medium cultural models (Cole, 1996; D'Andrade and Strauss, 1992; Geertz, 1983; Holland and Quinn 1987; Spradley, 1980) which connect directly with selecting a game design engine – one must pick an engine that can create the selected genre, but also know what the cultural models of that genre are, that is, what players are expecting to see within the context of the selected genre. Knowing the contextual nuances of genre in video game design is a key area in developing an experience that is congruent with a specified production culture. This module calls on participants to understand the relationships between media production, interactivity, and simulation within the context of a selected genre.

Module 14 Conclusions

Module 14 shows participants finished versions of what they must now create for submission: A single, cohesive video game design document. This document is based on all of the work completed thus far as part of the course, but it also indicates to instructional designers that plans should be made when considering the incorporation of multimedia elements as part of instruction.

Module 14 Theoretical Underpinnings: Socio-Technical Design

The theoretical underpinnings of module 14 include Cummings' 1978 socio-technical design theory, that is, that social aspects and production technologies should be inherently fused as part of the design process. This is explored in this module through the research and analysis of completed game design documents, where the intention of the research is to understand the cultural nuances of creating a game design document, via practical and real-world examples of game design documents.

Each module in the *Gaming, Interactive, and Multiplatform media* course is a direct suggestion to instructional designers, who wish to include multimedia as part of instruction. It invites the specific, directed, and intentional distribution of multimedia, as it connects to specific participant-focused outcomes.

This creation-as-research dissertation has contained four specific areas that speak to the core argument – that the semiotics of multimedia, in conjunction with media production practices, within the context of simulation and interactivity via the video game medium, are portable to education, instructional design including multimedia, and multimedia instructional design. The contextual nuances of the statement that this research wishes to contribute to the discourse can only truly be understood when all four areas of the project (this written paper, the online course in video game design, the 15 summative videos, and the dissertation presentation) have been consumed by those interested in the statement of this project. Missing out on experiencing one element of this multimedia experience, will lead to a disconnection between my statement of possibility, and the content contained within the individual sections. The work must be consumed as a collective piece.

To be blunt, video games are, in fact, already a form of multimedia instructional design – that is a property of the medium that is inseparable. In summary, the knowledge economy

surrounding the semiotics of multimedia in instruction can be increased, by looking to video games as a leader in matching multimedia with learning objectives. If this level of detail is achieved regarding the specifics of media usage, an informed desire to incorporate multimedia in instruction will lead to an increase in instructor vocation as multimedia instructional designers - a direct result of an informed perspective of the utility of the various components of multimedia in the context of classroom instruction. This is, in my view, what will lead to the increase in the knowledge economy surrounding multimedia in instructional design, not only in Canada, but globally.

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Appendix

Module Summary Videos

Below is a link to summary videos of the creation-as-research project. These videos will give perspective on what participants, the students, will experience, while briefly detailing some of the theoretical underpinnings of the design, and the delivery structure.

https://youtu.be/gYEEP5GVam0

Course Online Content

The online *Gaming, Interactive, and Multiplatform media* course is live, in beta form, available on a Humber College server, which can be navigated via the link provided. Please note, the site is almost in its final state, so some content, such as image references, are still pending institutional approval.

Also, this course will be available to students as part of a postgraduate degree –

Please **DO NOT** distribute the following link:

https://mps.humber.ca/gaming-interactive-media/#

Course Framework: Offline Development Content

This section includes all of the designed content, which was planned and formatted before the creation of the previous section, the final form of the online course. Note, there are the invisible and visible affordances of the course present in each module.

Module 1: Story and Genre

Pedagogical Focus (This paragraph is hidden from student view)

In this module, the foundation of the course is laid out, without an assumption of prior knowledge of interactive experience design through video games. We will "secretly" be covering close to 40 game design and educational theories throughout this course, but students will only be demonstrating an understanding of the theory through the design of a game of their own creation. This first module will purposefully attempt to feel completely manageable. Remember, I said, feel completely manageable—the challenge that students typically have lies in connecting their ideas to known game design and educational theories. This first module is designed to have students happy to take the course, starting off with some of the heavier theories, while motivation and retention levels are at a higher level. Further, this module attempts to humble students who believe they know quite a bit about video games, while attempting to motivate students less confident in their understanding of video games, particularly within the context of education. Each module will begin with quotes, designed to help students understand the theme of the module in question.

<u>**Module Introductory Quotes**</u>

1. "In essence, game designers—like teachers—must become "miniexperts" on a subject because they need to parse and reverse engineer the subject's underlying systems in order to generate procedural representations of them within the structure of their game."
- Constance Steinkuehler, Kurt Squire, & Sasha Barab. *Games, Learning, and Society: Learning and Meaning in the Digital Age*. (2012), p. 482.

2. "The challenge of creating games that model real-world issues is immense, even for professional game developers." - Constance Steinkuehler, Kurt Squire, & Sasha Barab. *Games, Learning, and Society: Learning and Meaning in the Digital Age*. (2012), p. 482.

   3. "In games, we learn how systems work, and the system rewards us as we learn. This process of discovery and mastery produces a game's meaning."
- Constance Steinkuehler, Kurt Squire, & Sasha Barab. *Games, Learning, and Society: Learning and Meaning in the Digital Age*. (2012), p. 480.

Module Introduction

When we talk about good storytelling, it isn't often that the video game medium is placed in the same statement, but video games are arguably the most interactive form of storytelling, a form that allows the user to engage with stories in a way that connects with many sensory functions. On this course, you are an experience designer, and by the end of this course, you will have developed the first phase of your very own video game - the beginnings of a cohesive game design document. You'll need to begin thinking about the nature of designing user experiences.

In this first module, we take a look at some of the core concepts of game design. You will learn what you are responsible for building throughout the course by seeing how other games are developed and by looking through the eyes of other game developers. In this way, you'll be able to start taking that information and applying it to the design of your own game. Because this is an introductory course, we will steer clear of actual code, media production, and graphics development and focus on the initial conceptualization stages.

Further, the way this course is structured is to get you to understand that the development process is iterative—as you learn things, you'll have to go back and adjust what you started developing to create a more informed design. By the end, you will be responsible for revisiting everything you've completed in each module and polishing it up to make one final cohesive and pitchable document.

To summarize, by the end of this course, you will have written a Game Design Document (GDD), which can be used to start the digital manifestation process. It is rare that the sections you submit throughout the term will be identical to the way they appear in your final document submission, as you learn new concepts, and have new ideas, throughout the course.

Module Rationale

In this module, you will learn a bit about video games as a tangible storytelling platform by being introduced to some video game design and educational theoretical concepts. Further, a brief introduction about the world of gaming, from a production perspective, will be covered. It's important to remember that playing a game is **not** the same as making a game. It may be easy to press the jump button, but deciding the properties of the player jumping as it connects to the story, is a completely different mode of thinking. More on that later.

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Module Learning Outcomes

By the end of this module, you should be able to:

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design

Module Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Story: Telling it, but not smelling it	None	N/A	None	None	N/A	N/A
Part 2: The 8 Issues of Game Design	None	N/A	None	None	N/A	N/A
Part 3: Your Title and Genre	GDD: Game Title and Genre	2%	Mind Mapping Software, Wiki	1 hour	Collaborative	None

[END OF PAGE]--

PART 1: *Story: Telling it, but not smelling it*
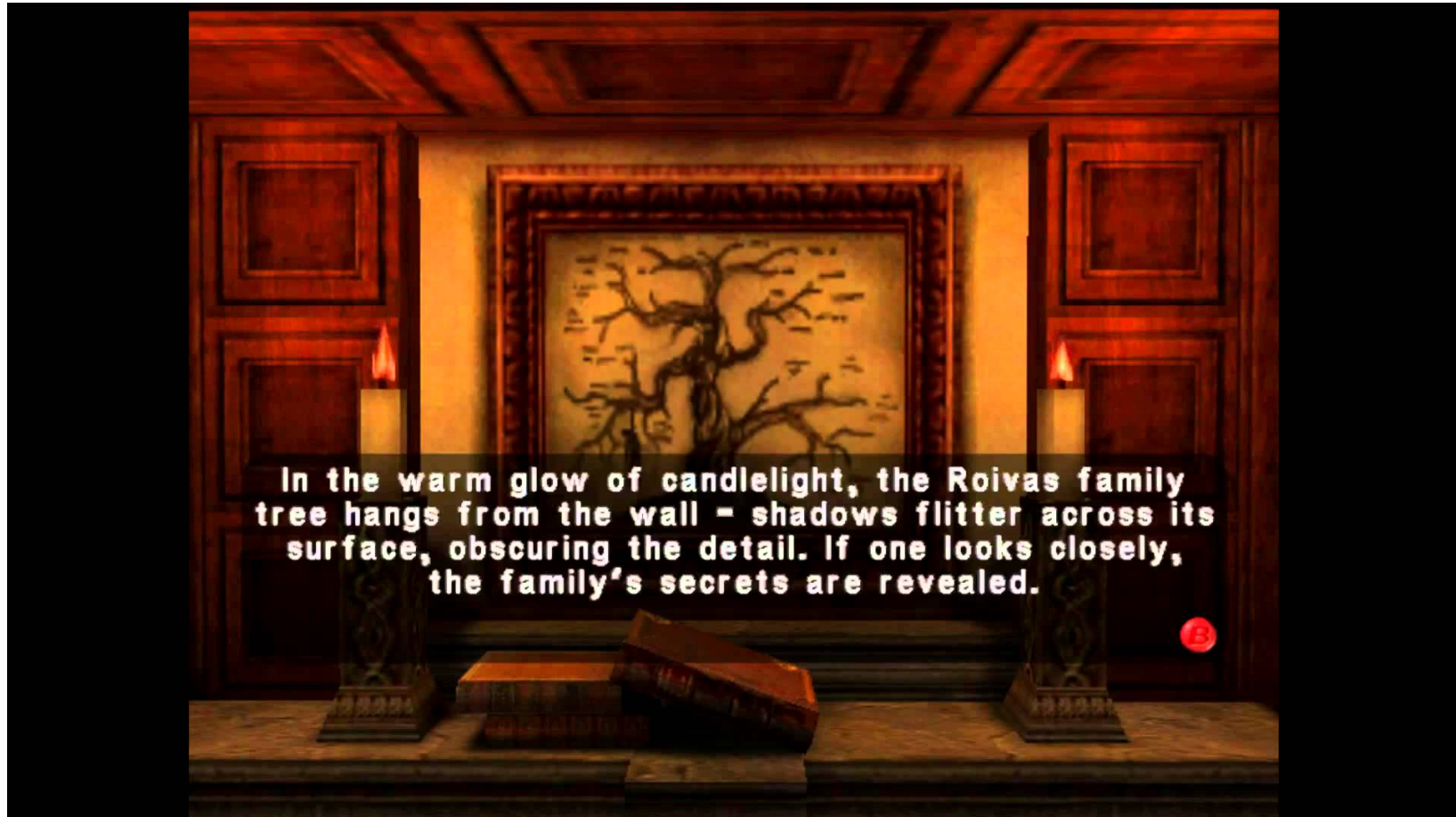
"Scene from Eternal Darkness: Sanity's Requiem"

Think of your favourite story. No, seriously, think of your favourite story. Who was the main character in that story? What did this story tell you? Where did the story take place? When did this particular story occur from a time perspective?

Most importantly: Why was this story important to you?

No matter what your answer is—it will most likely involve the story. Storytelling is one of the most important ways that you can teach somebody something. It helps them to remember things if you can connect with them in a way that is…you guessed it…meaningful.

We make meaning from stories. It could be in the character, it could be in the content, and it could also be in the content of the character… (see what I did there?). Regardless, the way that you tell a story can have a direct effect on the way that your experience is interpreted.

You won't have to start writing out the different sections of your story until next module, but I want you to start thinking about what kind of game you would like to build. Will it be something that tells your story, and attempts to shed light on an area of life rarely explored by video games? The answer lies within you.

Before you get started, though, it might be nice to begin to get your heads into the mode of the designer, and, believe it or not, the teacher. More on that later…

Your first task in this module is simple: take a look at the video linked below—this will complete this first part of Module 1.
[Insert Video Link] https://youtu.be/1jdG2LHair0

There are aspects of design that many scholars detail, summarized well by Constance Steinkhuler and others. Let's take a general look at some of them next, and then we'll break them down in greater detail.

[END OF PAGE]--

PART 2: The 8 Issues of Game Design

This second part may seem a bit mentally heavy, at first, with the game theory that we'll cover. Try not to worry about the word *theory*. If you keep in mind that you are creating an experience for someone other than yourself, it should make perfect sense. It's kind of like empathy…more on that later, too.

"Scene from The Walking Dead Game"

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First, we're going to talk about some of the issues of game design. Remember, I said *some* of the issues of game design. Though we will first look at eight key issues, there are many more. This is just to get you into understanding some of the differences between playing games, and making games.

Also, keep in mind that the eight issues of game design are not exclusive to video games; these can apply to almost any form of storytelling, including education, regardless of format. Remember, one focus of this course is storytelling. Another way to think about this particular form of storytelling is that you are a user experience designer—think of it as building a rollercoaster. Think of yourself as a sort of…Rollercoaster Tycoon…

"Screen from Rollercoaster Tycoon"

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Sound complicated? Well, you'll see what I mean in a moment. It would make sense to take notes on the things that make sense to you—you're going to need this information to make your own game. Your understanding of the concepts throughout this week's module will connect to following modules. Further, you'll want to draw congruence between what you're reading, and the game that you'll be designing as part of this course. Let's get started…

8 Issues of Design

First, let's take a look at all eight of the issues from Steinkuehler et al. Then, we'll take a look at each one in greater detail. Remember, write these down—the experience might be like learning a new language here.

Readings:
8 Issues of Design

- 1. Issues
- 2. Game Design
- 3. Technology
- 4. The iterative process
- 5. Systems Thinking
- 6. Storytelling
- 7. Visual Art
- 8. Sound Design

1. Issues

Understanding the issues that you want to tackle in your game is a critical aspect of designing it. You'll most likely want to connect your story to some sort of relevant issue in order to keep your player engaged.

"Screen from *Life is Strange*"

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Think of this question when designing your game:

What issues/problems will your game address?

The best answer to this, in my view, is something that comes from the heart. It doesn't have to be though—it's not as though there is an in-depth story to a game like...

There are tons of examples of games where the story is not the focus. Think about this when articulating the kind of experience you'd like to create. For some, the story portion will be much more detailed while, for others, it may be that

the game mechanics (found in later modules) will be the core focus. Regardless, it's important to think about the issue, or issues you'd like to address.

Would you like some examples? Okay...

Social: Inequality

Political: Power and Corruption

Personal: Identity and significance

Or…

Perhaps you just want to entertain—addressing the issue of **boredom**

Let's move on. I'll ramp up the difficulty as you start to make more sense of these concepts.

2. Game Design

This is arguably the most important one when it comes to video games. You'll need to think about the nature of the experience you're trying to create. We will constantly be returning to this area throughout the course: don't forget about this one.

Oh…some examples you say?

<div align="center">

You need to consider the **game rules**

You need to consider the **game affordances**

You need to consider **reward systems**

You need to consider **game design engines**

You need to consider **game mechanics**

</div>

It's okay if you don't understand these…right now. You will by the end of this course.

Let's move on…

3. **Technology**

As much as this planet will have you believe, this should not the most important part of your game design at this stage.

Remember this: technology will always change, so try not to make your game contingent on a specific technology.

Start with the story, not the technology.

I repeat…

Start with the story, not the technology

Examples?

Mobile phones
Tablets
Personal computers
Personal computers: Gaming services
Home game console
Augmented Reality
Virtual Reality
Wearable technologies

Let's move forward…

4. The Iterative Process

Try to think of the iterative process like this course:

You're going to keep building on the various components of your game throughout this course - repeatedly.
You'll keep improving parts of your game as you learn, and think about it more.
That's what is meant here. Thinking about building a house from the ground up—you start with the different layers, and keep building as needed. It is okay to return to some parts of the house to touch up areas, as you learn more.

<u>Prototyping</u>
Trying out different approaches to a game design

<u>Concept Mapping</u>
Creating a mind map to detail the different areas of your game…Personally, I use Scapple for Mac

[Video Link: https://www.youtube.com/watch?v=zvP6c7AFx_c]
"If you watch this optional intro video, you'll see exactly what Scapple is, and how to use it.

<u>Concept Development</u>
Working to ensure that the idea for your game is consistent throughout

<u>Testing</u>
Trying out the different parts of the game as you make the transition from concept to development

<u>Public Testing</u>
Um…having many people, other than you, test out the game, soliciting feedback shortly after

<u>Refining</u>

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After getting feedback, making changes to your game, and repeating this stage to improve the game throughout development

Time to get a bit more serious… Let's move on…

5. Systems Thinking

You need to understand the relationship between your game and the issues that you wish to present. It is not as simple as you might think, as this is the critical balance between the idea and the execution in video game form.

Yes, there is a balance.

Okay…enough textual examples…are you ready?

For these examples, prepare to watch some gameplay.

Have your sound ready and, if you are able, maximize the video player so that you can see the intricate detail of the games that follow.

The video link will be located just below the cover art, and will be in this colour

Ready…?

Our first topic is...

Organized Religion, Corruption, and Identity
Told through the Japanese Role Playing Game (JRPG) *genre*:

Final Fantasy Tactics (Original Release)

So…what did you think? Did you think that games could tackle such sensitive topics? Would you like another one? Okay, how about…

Inclusion, Belonging, and Graffiti as Art and/or as Vandalism
Told through the Action *genre*:

Jet Set Radio Future

So…what did you think? If you've played this game, you'll understand that playing the game is much more than just a fun experience. Okay…last one…Ready?

<u>**Feminism, Power, Love and Freedom**</u>
Told through the First Person *genre*:

Mirror's Edge

Pretty cool huh? Notice that, with these examples, there is a close link between the issues and the game systems. We'll cover this more when we get to "genre" in the upcoming modules. For now, just know that these specific game mechanics and engines were purposefully selected to best represent the story. Which leads us to our next point…

6. Storytelling

This one seems simple, but it really isn't. Telling an engaging story is one thing, but telling an engaging story through an interactive medium is another thing.

Think about this for a moment…. waking up this morning…

How would you tell an engaging story about what happened when you <u>woke up this morning</u>?

How would you tell that same story in <u>video game form</u>?

What would you allow your player to <u>do</u>?

This leads us to the next point, actually...

7. Visual Art

Keep this in mind when it comes to visuals:

What your player sees matters.

From the visual styles, to the way that the player engages with in-game menus and the environment, it all matters

Yes, it all matters.

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Which leads us to the final issue...

8. Sound Design

Keep this in mind when it comes to sound:

What your player hears matters.

From the soundscape to the way that the player engages with in-game menus, and the environment; it all matters

Yes, it all matters…

It's time for you to take a look at a video specifically articulating sound design in video games...

Ready?

[END OF PAGE]--

PART 3: Your Title and Genre

Okay, now, if you've gotten through this module really quickly, you'll want to know what's next to do before moving on to another module. Here's the summary:

1. **You need a game title (tentative)**

2. **You need a game genre**

This week, you won't have too much to do as homework as most of what you've seen so far might be a bit new to you in terms of thinking about building your own game. By the end of this module, I would like you write a tentative title for your game and select the genre that would suit the game you intend to build.

Basically, a genre is directly connected to the mechanics of your game—there are many of them, so choose wisely. It may be useful to take a look at a larger list of video game genres before making a decision.

You can access a brief summary document by following the Wikipedia link found below:

[Link: https://en.wikipedia.org/wiki/Video_game_genre]

Authentic Engagement #1 (Your Assignment):

An Authentic Engagement, in this course, is a task that directly connects you to a piece that is usable in a portfolio, or an item that is intended for professional consumption. Your first task is to choose a game title and genre. The link below will take you to the details of the first assignment:

GDD: Game Title and Genre

[END OF PAGE]--

Summary

So far, we've covered story, looked at some examples of story, and read a bit about game genre. It's up to you to make the link between the title of your game and a genre. We're starting off slowly, but, things will pick up quickly.

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[END OF PAGE]--

Module Bibliography

Required Film & Video:

- Catch the second episode of RBMA's Diggin' In The Carts. (n.d.). Retrieved July 12, 2015, from http://www.redbull.com/en/music/stories/1331677504124/diggin-in-the-carts-episode-two

- EyeNvrGetKills. (2011, February 28). *Jet Set Radio Future "HD" (Part 1)* [Video file]. Retrieved May 13, 2015 https://www.youtube.com/watch?v=-XzQ7y7GRXs.

- Final Fantasy Tactics Complete Playthrough and Transcript. (2014, May 23). *218 - Scene 54 - Delita's Thoughts - Church in Zeltennia* [Video file]. Retrieved May 13, 2015 https://www.youtube.com/watch?v=X4MieiqeJRl.

- Floyd, D. (2008, February 17). *Video Games and Storytelling* [Video file]. Retrieved May 13, 2015 https://www.youtube.com/watch?v=1jdG2LHair0&index=1&list=PL1YgBzwfcU41hq8o4U9W0x6ulB1_riouy

- Gamer Max Channel. (2014, December 2). *Mirror's Edge - Walkthrough Part 1 Gameplay 1080p HD No Commentary* [Video file]. Retrieved May 13, 2015 https://www.youtube.com/watch?v=6kViAu5omLU.

- Journey (PS3) Walkthrough HD (No Commentary) Part: (1/8) - YouTube. (n.d.). Retrieved July 12, 2015, from https://www.youtube.com/watch?v=2RjyH4XrSJc&feature=youtu.be&t=15s

Readings

Listed below are all the readings you are <u>required</u> to read for this module.

- Video game genre. (2015). *Wikipedia*. Retrieved May 13, 2015 http://en.wikipedia.org/wiki/Video_game_genre.

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

LucidChart. (2015). Retrieved May 13, 2015
   https://www.lucidchart.com/pages/new/mind_mapping_software?utm_expid=39895073-
   121.tnpPrwRbSsGcaOwpeTr-gQ.1&utm_referrer=https%3A%2F%2Fwww.lucidchart.com%2Ftour.

MindMeister. (2015). Retrieved May 13, 2015 https://www.mindmeister.com/features.

MindMup. (2015). Retrieved May 13, 2015 http://blog.mindmup.com/p/realtime-collaboration.html.

Scapple for Mac OSX and Windows. (2015). *Literature & Latte*. Retrieved May 13, 2015
   https://www.literatureandlatte.com/scapple.php.

Supplemental Resources

Literature & Latte. (2013, April 18). *Introduction to Scapple* [Video file]. Retrieved May 13 2015
   https://www.youtube.com/watch?v=zvP6c7AFx_c.

Steinkeuhler, C., Squire, K., & Barab, S. (2012). *Games, Learning, and Society: Learning and Meaning in the Digital
   Age*. Cambridge, UK: Cambridge University Press.

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Assignment Details (For Instructor & Online Content Creator)

Game Design Document: Game Title and Genre					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*			Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming	Y		Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	

		Fieldwork		**Technical Notes:**
		Game		TechNote: Please create a group wiki entitled, "Game Titles and Genres" to which everyone in the class has access. Can you set it up so that it's a table with the following headings:
		Podcast (listen)		
		Other		Student Name Game Title Genre Comments on Changes Constructive Feedback

	Assignment Instructions	It's time to choose a game title and the genre you want to create in. Don't worry about it being the final title; you can change it as you learn more about storytelling, game design, and the relationship between the two.
		
		This is all part of the process—the iterative process.
		
		Note: In this authentic engagement, you will be doing a brainstorming exercise. You can choose to do it on paper or in digital format. If you work with paper and pen, please prepare to scan a copy of your work to eventually post in our discussion forum. If you prefer working on a computer, we recommend you conduct the exercise using a mind mapping tool.
		
		Free Mind Mapping tools you can use…
		There are many options of online mind mapping tools from which you can choose. Here is a selection of three that we think are great:
		
		    1. _MindMeister_
		[INSERT THUMBNAIL with embedded link to https://www.mindmeister.com/features]
		    2. _LucidChart_
		_[INSERT THUMBNAIL with embedded link to https://www.lucidchart.com/pages/new/mind_mapping_software?utm_expid=39895073-121.tnpPrwRbSsGcaOwpeTr-gQ.1&utm_referrer=https%3A%2F%2Fwww.lucidchart.com%2Ftour]_		

3. *MindMup*
[INSERT THUMBNAIL with embedded link to http://blog.mindmup.com/p/realtime-collaboration.html]

Each of these online mind mapping tools have free versions you can use to complete all the mind mapping activities on this program. You are free to use one of these or find another, if you prefer. If this is your first time working with a mind mapping tool, please leave yourself ample time during this module to complete this activity so that you make sure you have time to actively collaborate with your peers.

Step 1: Create a mind map in which the central node is called, "My Game Title Ideas." From there, spend 15 minutes brainstorming potential titles for the video game you're designing for this course. Start your timer and just keep adding as many nodes branching off of the central node as you can. Don't filter any of your ideas at this point. The more free-flowing you can make this experience, the better the chance you're going to find that amazing title you're hoping to discover.

Here's an example to get you started:

Note: you won't be asked to share your mind map with the class, but you are more than welcome to include it in your professional portfolio if you plan on documenting the design process for future reference.

Step 2: Go to this activity's wiki and contribute both your first choice for title and the game's genre to the table provided. Everyone in the class will be adding to this table, so you'll get a chance to see how everyone else's ideas come together, too.

If, at any point in your development process, you'd like to go back to this wiki to amend your entry, you are free to do so by simply changing the information in the "Game Title" or the "Genre" column next to your name. If you do end up making a change, please also write a few words about your reasoning for making the change in the column entitled, "Comments on Changes" and include the date of the change to make it easy for people (as well as for yourself) to see the timeline of the evolution of your title and/or genre (this could also end up being a valuable portfolio artefact for you). If you end up making a change more than once, just keep adding to your "Comments on Changes" (without deleting your original comments).

Step 3: Browse the game titles and genres others have added to the wiki. Pick at least a couple that strike you (for whatever reason) and then comment on why your choices stood out to you by including some feedback in the column entitled, "Constructive Feedback". This step isn't about just saying which you liked and didn't like. Your task here is to provide constructive feedback to your colleagues to help them refine their choices. So, for example, you could comment on why you feel a title doesn't work (e.g., it's too wordy, there are other games already out there with similar titles, you find it offensive, etc.). Think of this as a process of helping one another refine your ideas.

Note: the sooner you add your title and genre to the wiki, the higher the chance that you will get constructive feedback from your peers on your choices. Although this activity is something for you to complete in this module, you may find yourself coming back to the wiki throughout the course as you continue the refinement process. For this reason, we've made a link to all your course wikis part of the navigation menu for this course so they are easy for you to access, regardless of which module you're in.

Module 2: 7 Types of Persuasive Technologies

Focus

The focus of this module is for students to get some hands-on experience with a game that is rich in story, but devoid of dialogue. Then, after learning about how this game embodies the seven types of persuasive technologies, they are going to begin writing the stories behind their own games. Remember, I'm using video games as a mask to explain media production processes. I'm teaching them to be directors and writers here.

Module Quotes

1. *"…[T]hese tools…use technology to alter actions or beliefs without engaging [players] in a discourse about the behavior itself or the logics that would recommend such actions or beliefs."*
   Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames p.59-64*. The MIT Press., pp. 60-61

2. *"…[some games are] primarily intended to craft new technological constraints, that impose conceptual or behavioural change in [players]."*
   Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames p.59-64*. The MIT Press. p. 60-61

3. *"Perhaps [the 7 types of persuasive technologies] offer valid ways of using technology to alter behaviour."*
   Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames p.59-64*. The MIT Press. p. 60-61

Intro

In this module, you're going to do four things: play a game, talk about that game amongst your peers, learn about how you're being led while you play games, and then you're going to start developing the story of your game. So far, you should have a game name and a genre selected. With these things, you'll be able to start teasing out your story.

Module Rationale

The purpose of this module is to get you to dig deeper into your story, in order to better understand how to plan to tell that story using a game. This will be most important once we learn about the significance of game mechanics.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Differentiate user experience design processes

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Playing with Persuasion*	None	N/A	None	None	N/A	N/A
Part 2: The 7 Types of Persuasive Technologies	The 7 Types of Persuasive Technologies in Limbo	3%	Discussion Board, Spreadsheet Software/Charting Tool, Online Form	2 hours	Group**	None
Part 3: Story and Writing	GDD: Story Breakdown	7%	Word Processing Software, Assignment Dropbox	2 hours	Individual	Previous module
	Review and Revision	0%	Mind Mapping Software, Wiki	30 minutes	Collaborative	Game Title and Genre

*During this course, you will be asked to play a number of video games. However, just like you aren't given marks for reading chapters in textbooks as part of your coursework, so too will you not necessarily be assigned marks for playing the games. Having said that, it's important for you to understand that even though it says in the Task Checklist that there are no authentic engagements in a given part of a module, you may still be expected to spend an hour or more engaging with gaming technologies in preparation for the remainder of the module.

**Please note that your first authentic engagement in this module is a group task that will require extra time to coordinate. Please keep this in mind as you plan out your schedule for the week.

[END OF PAGE]--

PART 1: *Playing with Persuasion*

Okay. It's time to **play** some games. (What? You didn't think that it was going to be all work and no play, did you?) This will be something that we do often in this course—the best way to understand what games do is to…play them. We're going to start with a game that is a brilliant example of what new games can look like, even if they still may appear to look old on the surface.

Since we're going to be covering a bit of theory in this module (don't worry, I'm having you play first so you realize that you already KNOW the theory), I want to make sure you have an understanding of the theory in a game that connects to it quite well. I'll show you the seven theories below, but, it's perfectly fine if they don't make *any* sense without explanation— we'll look at them in greater detail AFTER you've played the game. Here's the list:

<div align="center">

Reduction
Tunneling
Tailoring
Suggestion
Self-Monitoring
Surveillance
Conditioning

</div>

See what I mean? Crazy right? Just stick with me and, by the time you complete this module, these terms should make more sense. Okay back to your mission for this module:

<div align="center">

Your mission today is to play two hours of: Limbo

</div>

Once you've spent some time getting into this game, move on to the next page, where we'll start breaking down some of the elements of gaming technologies, using Limbo for some of the examples.

[END OF PAGE]---

PART 2: The 7 Types of Persuasive Technologies

For this segment, we're going to break down some of the elements of gaming technologies that you've already seen, or played through in Limbo. Keep in mind that, these seven types are the ones covered by Ian Bogost in his book *Persuasive Games*. We'll expand on those theories here, as they pertain specifically to video games, with a couple of Limbo references. Ready? Let's take a look at the different types, then we'll break each one down:

Readings:
The 7 Types of Persuasive technology

- 1. Reduction
- 2. Tunneling
- 3. Tailoring
- 4. Suggestion
- 5. Self-Monitoring
- 6. Surveillance
- 7. Conditioning

1. Reduction

Reduction, generally, is one of the core reasons why video games are fun—tasks are simplified in a way that takes the potentially stressful parts of gameplay out of the game. Before we continue, I need to let you know that there are

SPOILERS AHEAD. If you didn't watch or play the first game, this guide will spoil some of the things that you were supposed to figure out on your own based on the way that reduction occurred in-game.

For example…you remember walking in Limbo, right?
How did you walk in that game?

[Insert image: http://www.thegamecritique.com/wp-content/uploads/2011/12/Limbo-2.jpg]

Simple: You held down the arrow key in the direction that you wanted to move. Now, imagine playing through that same game, where you had to tap a separate button for each leg. Not so fun, huh? Imagine how tired you would be in addition to thinking through the various puzzles in the game. This is reduction. You see it all the time.

2. Tunneling

The topic of tunneling is one of my favourite ones to have a conversation about with students. There is usually a student who tries to convince me that everything is possible in the game that they play—this is false. Read this next line very carefully:

There is no game that will allow you to go everywhere and do everything.

Think about it, and get back to me. Remember being chased by the spider?

[Insert image: http://static.giantbomb.com/uploads/original/0/669/1404071-limbo_esrb_t_720p30_st_6300kbps_53.jpg]

Well, whether you realized it or not, you were being tunneled. You actually had no choice but to move forward, because, doing otherwise would have meant certain death. The mere makeup of the game, as with most, is to lead you through a series of actions that are already predetermined by the designer…you. Remember, in a side scrolling game, like Limbo, you weren't always able to go back. This may have been because of memory saving issues, and didn't have anything directly to do with the storyline.

3. Tailoring

When information is given to you to change what you would normally do, this is what is meant by tailoring.

4. Suggestion

It's really difficult nowadays to find a game that somehow doesn't "suggest" what you should be doing when you play video games. Back in my day, however (yes, I'm that old) there were few suggestions. In fact, we just had to figure it out on our own. Don't believe me…? Watch this video about the original Super Mario Bros.

In this video, you've seen that it is possible to incorporate suggestion. In the case of the video, you should have been able to see just how suggestions were made through the design of the game. You were essentially forced to learn how to play the game by the way it was designed.

Now…back to Limbo.

One brilliant way that suggestion was made in that first boss level of Limbo, was primarily sound based. In that, every time you were able to get the spider to hit through ground (and not you)...

...you could, in the distance, hear the clanging of the bear trap that you were supposed to have seen in the tree, just before you encountered that boss:

5. Self-Monitoring

Now, believe it or not, the self-monitoring in Limbo isn't what you typically find in a game. Self-monitoring has to do with the player being able to see how well they are doing. This is mostly done with things like on-screen life meters, and things of that nature, but, the self-monitoring doesn't show up visibly in Limbo in the early part of the game, though it does later on…no spoilers…

[Insert Image: http://i.ytimg.com/vi/bO30KxAwJgA/maxresdefault.jpg]

Please add text: "Screen from Mario Golf 64. Here, you can see the player is able to monitor themselves through the various on-screen overlays: (Top Left) The details of the course, (Bottom Left) The details of the golf club, (Top Right) Wind speed, (Bottom Right) Ball strike angle, (Middle Bottom) Strength and optimal swing strength of the club."]

6. Surveillance

This does occur in Limbo (I'll leave that for you to discuss with your groups in a moment), but in multiplayer games where you are able to watch other players, surveillance is often an afforded ability.

[Insert Image: http://i.ytimg.com/vi/eAUicMXNdIc/maxresdefault.jpg]

Please add text: "Map screen from Mario Kart 64. This map, placed in the center of the game where all players can see it, shows all four players, who are primarily paying attention to their own corners of the screen, where the other players are relative to the entire course. Each player is able to strategize based on where the other racers are, because they are able to see where they are via the dynamic map. This is one example of surveillance."

7. Conditioning

This is a persuasive technology that you are familiar with, though perhaps you wish you were not. Each game nudges you to do specific things in specific ways. Sometimes, completing things in a particular way is what determines your success in that game. To get back to Limbo for a second, you were conditioned to avoid those bear traps only once, before you knew that you couldn't walk over them. It was either in the identification of the sharp image, or…you learned by walking directly into it by accident. Regardless, when we talk about these persuasive technologies, we're actually talking about how you teach your players to behave in-game.

How did you learn about bear traps?

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How did you learn about swimming?

It is likely that in Limbo, as with many other games, you were conditioned or, taught, how to behave in-game.

Keep these things in mind…because now it's your turn. You'll have to remember everything you learned in this module for the next two authentic engagements.

Authentic Engagement #1: [The 7 Types of Persuasive Technologies in Limbo](#)

[END OF PAGE]---

PART 3: Story and Writing

How did you do with the second part of the module? What Limbo should have helped you discover is that even in the first hour of a game, there are so many things that can be packed into it to guide the player. Limbo is an example of a game that only uses multimedia (picture and sound in this case) to guide. Because there are TONS of modern games that use text and cut scenes (or add fairies or command centers) to bludgeon players over the head with advice, I needed you to see that this is not necessary with all games.

Further, you may have also discovered that different people see different components of a game as embodying different types of persuasive technology—this should indicate one thing that will help you when you design: not all players are the same from a thinking and playing perspective. Remember this going forward.

Lastly, group work is a necessary part of game design. You need to become comfortable with working alongside other developers—it's a great way to see different perspectives of experience crafting.

Okay, story time! It's time to start writing your story—don't worry about it. I'll give you the headings to complete and you just have to let your creativity do the rest.

You will notice that the fields are quite similar to other types of storytelling—there is a reason for this. The reason is simple. You're probably telling a story.

Ready?

Authentic Engagement #2: GDD: Story breakdown

And before we end off this module, it's time to do some good old fashioned revision. The next authentic engagement walks you through the beginning of a very important process on this course: the process of review and revision.

Authentic Engagement #3: Review and Revision

[END OF PAGE]--

Summary

Okay, in this module, we've played Limbo (or watched it if you didn't play the demo) and, hopefully, you've read a bit about the 7 types of persuasive technologies (or you read that chapter in Ian Bogost's Persuasive Games). Then, you've gotten to start work on the world that you're going to create – this is your chance to start working on the story elements of your game. These are the most important, so, immerse yourself in this part of the process.

[END OF PAGE]--

Module Bibliography

LIMBO on Steam. (n.d.). Retrieved April 3, 2015, from http://store.steampowered.com/app/48000/

LIMBO Walkthrough (No Commentary) - YouTube. (n.d.). Retrieved April 3, 2015, from

https://www.youtube.com/watch?v=9RWGZBZhr1g&list=PL1YgBzwfcU41hq8o4U9W0x6ulB1_riouy&index=3

Required Film & Video

Listed below are all the videos you are <u>required</u> to watch for this module.

LIMBO on Steam. (n.d.). Retrieved April 3, 2015, from http://store.steampowered.com/app/48000/

LIMBO Walkthrough (No Commentary) - YouTube. (n.d.). Retrieved April 3, 2015, from

https://www.youtube.com/watch?v=9RWGZBZhr1g&list=PL1YgBzwfcU41hq8o4U9W0x6ulB1_riouy&index=3

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames p.59-64*. The MIT Press. p. 60
LIMBO on Steam. (n.d.). Retrieved April 3, 2015, from http://store.steampowered.com/app/48000/

LIMBO Walkthrough (No Commentary) - YouTube. (n.d.). Retrieved April 3, 2015, from
https://www.youtube.com/watch?v=9RWGZBZhr1g&list=PL1YgBzwfcU41hq8o4U9W0x6ulB1_riouy&index=3

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M2P2: The 7 Types of Persuasive Technologies in Limbo						
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	G		**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	Y
	Portfolio Artifact	Y			Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y			Journal	
	Social Consciousness				Wiki	Y
	Personal Branding				Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise	Y			Presentation	
	Writing Exercise	Y			Online Conference	
	Video (watch)				Analysis/Critique	
	In the news				Video (create)	
	Case Study				Podcast (create)	
	Brainstorming				Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest				Other: spreadsheet/chart	Y
	Fieldwork			*Notes:*		

		Game	Y	TechNote: create 8 discussion threads associated with this authentic engagement entitled, Reduction, Tunneling, Tailoring, Suggestion, Self-Monitoring, Surveillance, Conditioning, Final Summary (you may need to append "M2P2:" to the start of the titles unless you can create a separate discussion area that has the title of this authentic engagement and then the 8 threads within it). Everyone in the class has access to all the threads.
		Podcast (listen)		
		Other		
	Instructions	Now that you've played Limbo, think back on your gaming experience and consider how the persuasive technologies made their way into the game: 1. Reduction 2. Tunneling 3. Tailoring 4. Suggestion 5. Self-Monitoring 6. Surveillance 7. Conditioning Step 1: There are seven discussion areas set up for this activity. Each discussion area is dedicated to one of the seven types of persuasive technologies discussed in this module. Pick ONE of the technologies that you would like to focus on and post a comment in the relevant discussion area with the following information: a) The place, object, and area where you felt the persuasive technology was used in Limbo b) How the persuasive technology played out in-game *Note: Only four people are allowed to work on the same persuasive technology, so this is a first-come first-served situation. If there are already four group members working on analyzing a particular persuasive technology, find another group.* Step 2: As a group, compile a chart that outlines your collective conclusions to Step 1. You can either create a spreadsheet in a spreadsheet program or use a charting tool of your choice. Be creative. Remember that one key lesson you're aiming to take away from studying on this program is how to communicate messages effectively using a multitude of platforms and technologies.		

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		Step 3: Nominate one of your group members to post your spreadsheet/chart to the discussion area entitled, "==Final Summary==" to share with the rest of the class.

Step 4: Each member of your group is responsible for commenting on at least one other group's chart by stating how your experience playing Limbo aligned (or not) with their conclusions.

@Dan: At the end of the AE, students will be asked to do the following:

Please complete the following group evaluation based on your experience completing this authentic engagement:

Your name
Your project title
Your group mates' names
Distribution of work (who did what?)
Do you think all members contributed equally? Explain why or why not?
If you were to give yourself a grade, what would it and why?
If you were to give your other group mates a grade, what would they be for each and why?

Please email this confidentially to your professor.

M2P3A: GDD: Story breakdown					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

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		Game		TechNote: create link to Assignment Dropbox for Step 4
		Podcast (listen)		
		Other		
	Instructions	Step 1: Create a written document (in MS Word or a similar program) with the title "Story Breakdown" and save it with the following filename: GAMING_M2P3A-StoryBreakdown_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M2P3A-StoryBreakdown_JonesB.docx Step 2: Create headers within the document with the following categories: Overall Story Backstory (known to players) Backstory (unknown to players) Plot Game Progress in relation to story Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. *Note: We're not going to give you estimated word counts for <u>any task that asks you to develop a component of your GDD</u>. This is because the amount you write will depend on the type of game you are designing (i.e., those designing story-intensive games will write a lot more for this part of the task than those who are designing puzzle games). Write as much for each section as you feel you need to to get your message across.* Step 4: Submit your finished document to the Assignment Dropbox.		

M2P3B: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game	
		Podcast (listen)	
		Other: Review and Revision	Y
	Instructions	Game design is, as we'll mention a number of times throughout this course, an iterative process. That means that there will be a lot of back and forth between your documents (and potentially your ideas) before you reach the point where you have a complete GDD. You'll be learning new fundamentals in each module that will invariably inform your design process and will likely inspire you to go back to previously drafted sections of your GDD to tweak, revise, and sometimes even change all together. That may sound like a tedious process, but the more involved you'll become in the intricacies of the game design process, the more you'll appreciate the opportunity to revisit your ideas and evolve them even further. So, with that said, this is the first "GDD Review and Revision" authentic engagement you have on the course. There will be many review and revision opportunities throughout the course. We've purposely carved out time for you to get practice with this process so that you don't get overwhelmed at the end of the course when your GDD is due. Step 1: If you haven't done so already, revisit the Game Title and Genre wiki from the last module and see what feedback, if any, your colleagues have left for you. This is your chance to review your initial choice for title and genre, perhaps even go back to your mind map and do some more brainstorming, and decide whether you'd like to make any changes at this stage in the process. If you're happy with your initial decision, you can consider this step complete. Otherwise, make your changes and, in either case, move on to Step 2. Step 2: Review a couple of entries in the Game Title and Genre wiki that you didn't comment on during the last module and provide these new classmates with some constructive feedback.	

Module 3: 6 Components of Balance

Focus

The concepts in this module, I've found, are the parts that can push students away from considering game design. The amount of thought detailed in this section of the course, needs to be handled gracefully and, I've found, that using video games to parallel the concepts keeps students engaged. Don't sound too preachy, and ask students to think about their favourite games, where and when things seem a bit dense.

Module Quotes

1. *"Balancing a competitive multiplayer game is difficult—really, really difficult."*
   Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

2. *"A multiplayer game is deep if it is still strategically interesting to play after expert players have studied and practiced it for years, decades, or centuries."*
   Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

3. *"If an expert player can consistently beat other experts by just doing one move or one tactic, we have to call that game imbalanced because there aren't enough viable options."*
   Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

Intro

Balance. Every successful game has a delicate balance between elements. Creating balance in your game is similar to writing a ballad—you don't want to be too preachy, and you need to find a way to have your audience engaged and committed to your message. For example, if you are playing a simulator driving game and you can easily beat the game by holding down the accelerate button and never slowing down, then, it's likely that your simulator is not a simulator at all.

There isn't anything wrong with holding down the accelerator button in a game like Mario Kart, but, if you're in first place in that game, and everyone behind you kept on getting…hmm…blue shells, you probably wouldn't enjoy playing the game very much. This is the module where we discuss balance in games. Every great game needs balance in order to keep its players engaged—we're going to cover only a few elements in this module. Ready?

Module Rationale

This module should give you enough information for you to start designing how you will balance the game that you are making as part of this course. Here, you'll want to really think about how balance will be represented in your game by writing out the nature of the challenges that your game will have. Remember, no game balance, no game.

Learning Outcomes

- Critically engage in the iterative process of game design
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: The Ballad of Balance	None	N/A	None	None	N/A	N/A
Part 2: 6 Components of Balance in Games	6 Components of Balance in Freestyle 2: Street Basketball	3%	Word Processing Software, Photoshop (or similar graphics software) or an Image Capture Tool (e.g., Skitch), other tools for creating your visual, Discussion Board	1 hour	Collaborative	None
Part 3: Gameplay	GDD: Gameplay Breakdown	5%	Word Processing Software, Assignment Dropbox	1.5 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	1 hour	Collaborative	Game Title and Genre and Story Breakdown

[END OF PAGE]--

PART 1: The Ballad of Balance

Okay, for the first part of this module, your scholarly duty is to play at least two hours of another game. Which game, you ask?

[Insert Image: http://www.gamingclimax.com/wp-content/gallery/freestyle-street-basketball/05_02.jpg]

Your mission today is to play two hours of: Freestyle 2: Street Basketball

This game is free-to-play, but if you need to watch gameplay (i.e., you are on an Apple Macintosh computer of some sort), it should be in the same link as above. Try to spend about an hour playing this game (this game is great), keeping the word "balance" in mind while you play/watch. After you're finished, click to the next page to read about six different essential components of balance in multiplayer game design.

[END OF PAGE]--

PART 2: *6 Components of Balance in Games*

As a game designer, you are a director of fun. Balance is part of that fun.

There are many things to think about when developing your mechanics, and, David Sirlin is one of those people who can explain it well. Read the following article (or articles, if you get amped up about it) and then return here to apply your new knowledge to the next authentic engagement.

Authentic Engagement #1: 6 Components of Balance in Freestyle 2: Street Basketball

PART 3: Gameplay

Now that you've gotten to this point in the module, you should have finished reading the Sirlin article to expand your understanding of the concepts to keep in mind when filling out the next section of your GDD, which we'll call "Gameplay".

Remember, each week you will be completing a different section of the GDD. This week, you'll be tackling the "Gameplay" section but you'll need to learn a bit more about the specifics of the headers first. Here we go.

Gameplay Element(s)

Here, it would be useful to talk about what it is that your game is going to embody. Think of this as the back cover of the game when you purchase it, or the opening description found on page one of the instruction booklet…well...after all of those safety warnings and stuff come to an end…

[Insert Image: http://wiimedia.gamespy.com/wii/image/article/108/1080907/mario-is-evil-20100330112406109.jpg] Please add text: "A page from the original Super Mario Bros. instruction manual. See how concise this description is, while attempting to have the reader get excited about playing the game."

Number of Players (i.e., 1 – 100)

Here, you should simply state how many players will be able to play your game, and whether or not it will be a local, or networked experience. Think about how it would read on the back cover of your game, were it a physical copy.

[Insert Image: http://www.theisozone.com/images/cover/nds-1317959955.jpg]
Please add text: "Box art for Bomberman Land Touch. Notice the different ways that multiplayer is expressed on the back (leftmost) cover.

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Challenges/Obstacles for Players

Again, selling the game, explain some of the challenges that your player will face, along with some of the obstacles that you feel your game will definitely have. No need to place all challenges and obstacles in this area, just a teaser will suffice. Again, pretend you are writing this on the back cover of your game.

[Insert Image: http://www.theoldcomputer.com/game-box-art-covers/Sega/Megadrive-Genesis/S/Strider%20(2).jpg] Please add text: "Box art for Strider. Take a look at how the challenges and obstacles for players are framed."

Nature of the Challenges/Obstacles

Here, you can talk about, in more detail, the specific nature of some of the obstacles that one might have to overcome in-game. Remember, there is another module that will handle the specifics of these challenges/obstacles as they connect with your design, so, not too much detail at this point.

[Insert Image: http://i44.tinypic.com/audyyr.jpg] Please add text: "Page from the Super Mario Bros. instruction manual. Notice how the "what" and "how" questions are answered with each of the written descriptions.

Game Objective(s)

Again, here, think about the inside of the instruction manual, and how you can captivate a potential player into becoming an actual player of your game. It does not need to be too lengthy, unless it needs to be.

[Insert Image: http://zs.ffshrine.org/album/legend-of-zelda/english-instruction-manual-scans/z1manual-33-34.jpg] Please add text: "Scan from Legend of Zelda. Notice how one of the core objectives in the game is described through to use of one of the actual levels of the game.

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<u>Game Flow</u>

Here, you'll want to explain to the player how they will progress through the game.
Will they be constantly in flight, flying throughout the entire experience?

[Insert image: https://dakkster.files.wordpress.com/2010/06/038736bb5feacae6016eda10ce871ce7.jpg]
Please add text: "Screen from Ikaruga. There is no landing in this game."

Or, will there be level progression based on objective completion through planning?

[Insert image: http://i.ytimg.com/vi/KfDqZGjdS98/maxresdefault.jpg]
Please add text: "Screen from Rainbow 6: Rogue Spear. Looks confusing, doesn't it? This is how you would devise a plan of action for four team members, before heading into a mission. You could spend hours on a screen like this, planning. I used to…"

Or, will you be completing a series of races?

[Insert image: http://i.ytimg.com/vi/lSQK5rP3erA/maxresdefault.jpg]
Please add text: "Screen from Stunt Race FX. Notice the on-screen elements that indicate that you are able to be at the front of the pack."

Try to answer the following question in this area:

How will the player transition between levels?

Okay, now that you have the information you should consider, it's your turn. Did you make notes of the headers and the questions? Well, that is the information we're expecting to see when you start writing this section of your GDD.

Authentic Engagement #2: [GDD: Gameplay Breakdown](#)

And before we end off this module, take some time to look back at the choices you've made with respect to your game's title, genre, and the ideas you've put together for your story breakdown. Given the new information you've learned in this module, is there anything you'd like to revise?

Authentic Engagement #3: [Review and Revision](#)

[END OF PAGE]---

Summary

So in this module, you've played a multiplayer game that includes several balancing elements in order to keep the game interesting and engaging. Then, you've heard about some of the theoretical elements of game design that you should consider when designing your own game. Finally, you've actually been asked to start working on some of the gameplay elements of your own game. Look at how much you've done so far, and be proud.

[END OF PAGE]---

Module Bibliography

Film & Video

Listed below are all the videos you are <u>required</u> to watch for this module.

Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from

http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

Freestyle2: Street Basketball on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/339610/

Readings

Listed below are all the readings you are <u>required</u> to read for this module.

Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from

http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

Balancing Multiplayer Games, Part 1: Definitions — Sirlin.Net — Game Design. (n.d.). Retrieved April 5, 2015, from

http://www.sirlin.net/articles/balancing-multiplayer-games-part-1-definitions

Freestyle2: Street Basketball on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/339610/

[END OF PAGE]--

M3P2: 6 Components of Balance in Freestyle 2: Street Basketball					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	Y
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	

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		Case Study				Podcast (create)	
		Brainstorming				Review (Play, Movie, Audio, Lit, etc.)	
		Research/Webquest				Other: Visual Artifact/Infographic	Y
		Fieldwork		**Notes:**			
		Game		TechNote: create discussion thread entitled, "Balance Mechanics Visuals"			
		Podcast (listen)					
		Other					
Instructions		In this authentic engagement, you're asked to detail how the six components of balance in games apply to the game you played in this module. By the end, you'll have a chance to discuss the different perspectives of balance in multiplayer video games with the others in the class. Step 1: Now that you've played Freestyle 2: Street Basketball, write out which parts of your experience connected to the reading from David Sirlin. You can do this in point form or write your thoughts out in more detailed prose. You'll be using your notes from this step to create a visual of your experience in Step 2.					

Step 2: Create a one-page visual representation (similar to an infographic) of your experience playing Freestyle 2 based on your findings detailed in the previous step and title it, "Balance Mechanics in Freestyle 2: Street Basketball". Create an image that maybe has your avatar on the page, and describe, as concisely as possible, how the theories connect to the practical experience of the game player. Feel free to screen capture your avatar to include in your visual representation.

Here are some examples to give you a better idea of what the final visual representation could look like:

[Insert image: http://0.media.dorkly.cvcdn.com/72/56/d3680e7fb66b69c836c54702c59ae954-if-videogame-villains-were-pokemon.jpg]

[Insert Image: http://randommization.com/wp-content/uploads/2013/02/Videogame-character-pokemon_8.jpg]

[Insert Image: http://www.gameinformer.com/cfs-filesystemfile.ashx/__key/CommunityServer-Blogs-Components-WeblogFiles/00-00-00-00-09/2425.Anya_2D00_Character_2D00_Profile_2D00_Web.jpg]

You can use any technology you feel comfortable with to complete this task. For example, you could take a screen capture of your avatar and paste it into a one-page MS Word document and then add text boxes around it with your thoughts. You could also pull images from the web (those under a Creative Commons license are preferable) and include them in one MS PowerPoint slide with your comments in text boxes around the images. You could also use a mind mapping tool and get creative with a flowchart representation of your reflections with audio comments, making it a multimedia representation. The choice is yours. Remember that this is a potential portfolio artefact, so if you want to make a statement with this visual that reinforces your personal brand, one that you can use in a professional context later on, make sure to plan out your visual carefully.

Step 3: Share your final, one page visual representation with the group by posting it as an attachment or linking to it in the discussion area for this activity entitled, "Balance Mechanics Visuals". Step 4: Comment on at least three other class members' visuals, while sighting similarities using these statements as templates: a. I felt the same way that you did about…… because…... b. I didn't even realize that was happening with…… because….	

M3P3A: GDD: Gameplay Breakdown						
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
	Reading Exercise			Presentation	

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Students collect information by performing a task such as...	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming	Y		Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Video game design document (section)	Y
	Fieldwork		**Notes:**		
	Game		TechNote: create link to Assignment Dropbox for Step 4		
	Podcast (listen)				
	Other				
Instructions	Step 1: Create a written document (in MS Word or a similar program) with the title "Gameplay Breakdown" and save it with the following filename: GAMING_M3P3A-				

GameplayBreakdown_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be:

GAMING_M3P3A-GameplayBreakdown_BonkersK.docx

Step 2: Create headers within the document with the following categories:

Gamplay Element(s)
Number of Players (i.e., 1 - 100)
Challenges/Obstacles for Players
Nature of the Challenges/Obstacles
Game Objective(s)
Game Flow

Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build.

Step 4: Submit your finished document in the Assignment Dropbox.

M3P3B: Review and Revision

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	

		Brainstorming				Review (Play, Movie, Audio, Lit, etc.)	
		Research/Webquest				Other	
		Fieldwork		**Notes:**			
		Game					
		Podcast (listen)					
		Other: Review and Revision	Y				

Instructions	Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki? Step 2: Review one other entry in the Game Title and Genre wiki that you haven't commented on yet and provide your colleague with some constructive feedback. Step 3: Read through your Story Breakdown and determine if there are any sections you want to revise at this stage in the process.

Module 4: Character Development

Focus
In this module, students will focus on the character(s) in their games. Keep in mind, this section of the GDD may be longer for people who are designing a game that is story-intensive, while shorter for those who are creating a game that is more game mechanics heavy. This usually happens in games that contain multiple symmetric characters.

Module Quotes

1. "Because the story is told through the eyes of the character, several things are quickly established:
    *   The personalities of the character.
    *   The motive of the character.
    *   How the character perceives the world."
How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596

2. "It's a simple story, but because we feel the motives of each and every character, we want to complete it for their sake."
How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596

3. "Establishing a character's motive is the same as establishing what they want, and it's essential to making the player care about the characters they're using."
How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596

Intro
Knowing what you now know about some of the specifics of your own game—it's time to focus on the characters involved in your story. You're going to be focusing on establishing the personalities of your game. This may seem simple, but, to know each character in your game, you must become each character in your game.

As with the other parts of your GDD, this is where you'll have to consider everything that you've decided on to this point and whether there are any changes you want to make to other sections of it. You're free to go back and change them—remember, this is an iterative process.

Module Rationale
This module is a crucial element that involves the expansion of the story elements teased out in previous modules. This is where things start to get deep—provided you are creating a game that focuses on an intricate story. Some games focus on mechanic and, in those cases, this section of the game design document may be sparse in comparison.

Learning Outcomes
- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Story in the Seemingly Static	None	N/A	None	None	N/A	N/A
Part 2: Reading about Character	None	N/A	None	None	N/A	N/A
Part 3: Character Development	GDD: Character Development	2%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	1.5 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown

[END OF PAGE]--

PART 1: Story in the Seemingly Static

Are you still of the belief that great stories are congruent with great graphics? Well, if so, it's time to get you to question those feelings. Today, I'm going to ask you to play a game that may have mastered storytelling as it connects to game mechanics.

Your mission today is to play two hours of: Thomas was Alone.

Once you finish playing the game, come back to the module and go to the next page where we will start looking at a detailed breakdown of what you've played. Make sure you pay close attention to the characters in this game; you'll need to draw on your observations in order to complete the rest of the module.

[END OF PAGE]---

PART 2: Reading about Character

Have you finished playing? Okay. If you haven't played the game, be warned: SPOILERS AHEAD!!!

Okay…so how do you feel about your gaming experience? You did only play for an hour right? Well, if there are things that you missed, take a look at the following short article online. Once completed, return here to see just what you'll need to complete for the *Characters* portion of your game design document.

[Insert Link: http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596]

For the purposes of this course, we're going to break down the different components of the story. Keep in mind, this is but one approach to story development. The approaches used to create stories using different media will be similar, but not specifically congruent. You can feel free to expand on any ideas that you feel relate better to your story.

Alright, let's start with the first category:

Character Name

[Insert Image: http://s1.1zoom.me/big3/874/343398-blackangel.jpg]
Please add text "Ada Wong – Resident Evil"

Here, you'll want to think about the name of your character. Remember, it is not necessary for you to have a character name—it may be that your player is assuming the role of the main character—in this case, you may need to still think about what it is that you want your character to embody, as it may be an experiential role that your character assumes. There are many names that you can choose from. For instance, your choices might be based on the backstory of the character (e.g., you may want your character to embody the character name and properties of a Greek goddess, or something similar). Regardless, this is an important step in the process. To summarize, you need to answer the following question:

What is (are) the name of your character(s)?

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If you're having trouble coming up with character names, try playing around with an online name generator like Fantasy Name Generators or Ultimate Game Name Generator.

Backstory

[Insert Image: http://fc04.deviantart.net/fs71/i/2011/357/6/3/link_and_zelda_by_legend_tony980-d4k08oy.png] Please insert text "Young Link & Young Zelda – Legend of Zelda: Ocarina of Time"

Here, you'll want to consider what it is that formed your character into their current state. Chances are, you're not starting your game off with the birth of your character, and then the game stacks the growth and history of your character from birth (not that there's anything wrong with that, if that is what you wish). So, you'll need to give the player, and yourself, enough information to be able to understand what caused your character to be in the situation that he/she is in. Think about behaviors and life events that the player has not seen, and may not ever know through gameplay.

To summarize, you need to answer the following question:

What has formed your character(s) into their current state as they appear in your game?

Personality

[Insert Image: http://vignette2.wikia.nocookie.net/silent/images/f/f0/Heather.jpg/revision/latest?cb=20130622095322] Please add text "Heather Mason – Silent Hill 3"

Here, you'll want to consider the expressed or overt behaviors that your character will exhibit. Will your character be brave? Timid? Strong? Weak? Seemingly strong? Seemingly weak? Give careful thought to this—it may have a huge bearing on how your story is received.

Try to answer the following question:

What overt behaviors will your character(s) exhibit?

Remember: If character is not an important part of the way that your game will play, this section may not be as lengthy as for someone who is making a primarily story-driven game.

Appearance

This part should be easy for some, and more difficult for others. There are two ways that you can complete this section. You should first write a description of what you want your character to look like. Then, if you're an artist of some sort, you can draw a mock image of what you feel your character will look like at this stage of your game. It will most likely be easier for you to think about what your character will look like, once you complete the other areas in this section of your game design document.

Try to answer the following question:

What will your character(s) look like?

Also, if you haven't noticed yet, I'm purposely picking obscure games as examples; it's easy to talk about mainstream characters. I'm trying to get you to understand that there are millions of great games that you may not have heard of before. If you've been background-checking the images from this course, you'll see just how vast the video game library is.

Abilities

There is a large chance that some of your character(s) will have some sort of affordances, or abilities in-game. These may be as elaborate as changing surfaces to different elements, to simple investigation.

Regardless of your approach, you'll want to detail the abilities of each of your characters in this section.

Try to answer this question:

What will your character(s) be able to do in your game?

This is the part of the character section that may be much more elaborate than the other sections, as each character, regardless of whether or not they are nameless, will have some sort of ability—this is the interactivity portion (from a character standpoint) of your game. Don't worry about any code at this point—just dream big.

Relationship (to other characters)

Alright, this is where things get complicated. If you are creating a story-driven experience, it may be in your interest to spend a large portion of your time on this part of your game design document. You'll want to answer the following question:

How will your character relate to the other characters in your game?

This will help you make decisions that are absolutely necessary—you don't want to include extraneous characters at this stage, as you may complicate things a bit more than you need to at this point.

Oh yeah…and if you want to see a tiny (I mean tiny) example of how stories are fleshed out on a wiki, take a look at the link below to read a bit about how Eagle made his way into the Street Fighter Cannon.

Side note: This is the part of the course where you'll start to see the depth involved in making games. Remember, playing a game is not the same as making a game. You can do it, don't worry. Let's move on to the next section.

[END OF PAGE]--

PART 3: Character Development

Now, it's your turn. It's time for you to start detailing what your character, or characters, will look like. And what they think, how they think, what they believe in, and what they don't (in addition to the things mentioned in "Reading about Character").

Authentic Engagement #1: GDD: Character Development

In addition to developing your characters, spend some time this week to review your gameplay breakdown. In light of what you've been reading in this module, have you changed your mind about how your gaming experience should evolve for your players? Or maybe there's a voice in your head suggesting you go back to your game's title, genre, or the ideas you've put together for your story breakdown and make some changes. Given the new information you've learned in this module, is there anything you'd like to revise?

Authentic Engagement #3: Review and Revision

[END OF PAGE]--

Summary

In this module, you were responsible for studying the art of storytelling through character development. First, you played a game that strips away many of the external factors that sometimes shield players from engaging with a good story. Next, you read one perspective on the game in question. Then finally, as always, you were invited to write the next portion of your GDD.

[END OF PAGE]--

Module Bibliography

How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from

http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596

Thomas Was Alone on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/220780/

Required Readings

Listed below are all the readings you are <u>required</u> to read for this module.

Thomas Was Alone on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/220780/

How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from

http://gamedevelopment.tutsplus.com/articles/how-thomas-was-alone-uses-narration-to-build-its-characters--gamedev-596

Thomas Was Alone on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/220780/

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

How Thomas Was Alone Uses Narration to Build Its Characters - Tuts+ Game Development Article. (n.d.). Retrieved April 5, 2015, from

Thomas Was Alone on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/220780/

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M4P3A: GDD: Character Development

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

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		Game		: create link to Assignment Dropbox for Step 4
		Podcast (listen)		
		Other		

Instructions	Step 1: Create a written document (in MS Word or a similar program) with the title "Character Development" and save it with the following filename: GAMING_M4P3A-CharacterDevelopment_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M4P3A-CharacterDevelopment_SpitzterH.docx Step 2: Create headers within the document with the following categories: Character Name Backstory Personality Physical Appearance Abilities Relationship (to other characters) Use these headers to help guide your writing, and remember, you'll need to fill out a character profile for **each** character in your game. Yes...each character in your game. Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Step 4: Submit your finished document in the Assignment Dropbox.

M4P3B: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

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		Game	
		Podcast (listen)	
		Other: Review and Revision	Y
	Instructions	Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki? Step 2: Review one other entry in the Game Title and Genre wiki that you haven't commented on yet and provide your colleague with some constructive feedback. Also take a moment to reflect on any new feedback you've received on your title and genre. Step 3: Skim through your Story Breakdown and determine if there are any sections you want to revise at this stage in the process. Step 4: Spend at least a good half hour reading through the latest draft of your Gameplay Breakdown. Since you've been focusing on developing the details of the characters in your game during this module, you may want to pay particular attention to the *Number of Players (i.e., 1 - 100)* and *Challenges/Obstacles for Players* sections of your gameplay breakdown document and make any changes to build upon your initial ideas.	

Module 5: Betting on Setting

Focus

In this module, we're going to take a look at setting. That is, where your game takes place. This may be directly related to the previous modules involving storyline and character development, but it doesn't necessarily have to.

Module Quotes

1.   "One room. Four walls, a ceiling, a floor—a claustrophobic space, if you can't leave."
The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/
2.   "… [i]t's an elegant and engaging game, one that builds an atmosphere of dark experimentation."
The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/
3.   "You don't know quite where your search will take you, but it seems it won't be good."
The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/

Intro

In this module, you will become familiarized with some of the ways in which the setting of a game can be established. From the simple room, to the elaborate planet, setting is one key component of game design, particularly where a cohesive storyline is concerned.

Module Rationale

This part of the course will allow you to establish where your game takes place. Most games take place somewhere, so it's time for you to think, and write, about where your game will be set.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Articulate a grasp of monetization processes through a written document
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Betting on Setting	None	N/A	None	None	N/A	N/A
Part 2: Setting Development	GDD: Setting Development	5%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Setting Feedback	5%	Wiki	30 minutes	Collaborative	None
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	2 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development

[END OF PAGE]--

PART 1: *Betting on Setting*

Okay… you know what time it is? It's game time. Well…play time. In this module, you're going to play a game while thinking about the intricacies of the setting of games. I've chosen a title with a simplistic setting so that you can see the extreme opposite of what you may have originally had in your head—your setting does not, I repeat, does not have to be complicated in order to create a great story, and/or a great game.

[Insert Image: http://images.pocketgamer.co.uk/artwork/na-fotzp/the_room_3.jpg]

Your mission today is to play two hours of: The Room

Once you've finished playing the game, read the following review of it to help you contextualize the theme of the week—game setting. The information in the reading just might prompt you to head back and play the game again, just to see how incredible of a concept this game is. Come back soon though, for it's going to be your turn after you get through the article.

[Insert Reading: The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/]

[END OF PAGE]--

PART 2: Setting Development

Now that you've seen/played the practical side of creating a setting—you have also probably figured out that the story can be the element that is largely fleshed out, and it can actually all take place in, you guessed it, a room.

Okay, let's take a look at some of the different considerations when thinking about your game setting. Ready?

Setting Development: Game World (context)

Here, you should think about where your game takes place overall. Think about it this way, if your game takes place in Canada, the world might be Earth. We're talking about where the levels are housed, not the levels themselves. Try and answer the following question:

Where does your game take place, overall?

Does this give you a sense of what is meant by context?

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Game World (look and feel)

For this section, it may be useful for you to keep two variables: "will" and "can". Here's an example:

The player **will** be able to walk into rooms.
The player **will** be able to walk around rooms.

The player **can** interact with the workbench.
The player **can** interact with the vending machine.

The point here is that you may not want your player to be able to interact with an infinite number of items while playing because you can run the risk of overloading your player to the point that playing your game becomes less fun.

Tangible "Can"

Here, you'll need to consider what types of worldly objects your player **can** interact with. This could be chairs, tables, pigs, wooden blocks, amulets, gems, stars, coins, etc.; whatever you feel is important in your game. Avoid the cannot in this section, as it's not necessary that your player cannot interact with objects and items.

Non-tangible "Will" and "Will Not"

Here, you'll want to consider what types of things your player **will** or **will not** be able to do within the game world. This can be daunting at first, but it's a matter of keeping you concise in the aforementioned section. For example, the player will be able to run, but will not be able to walk.

[Insert Image: http://www.gamereactor.eu/media/11/speedrunners_1091154b.jpg]
Please add text "A screen from Speedrunners, where players **will** run, and **will** not be able to walk."

You'll have many questions when it comes to your own games, so try to return to the brief descriptions here as often as you can. Try to answer the following questions here:

What can your player interact with (can)?
How will your player interact within the world (will or will not)?

Game World (areas)

Now that you have established the setting of your game, it would be useful if you could work at the different areas in your game. Now it is time to start thinking about the individual levels. Start simple, and don't get too excited. Once you work on one level, it might be easier to follow the format of the first level, particularly as it pertains to the next section of the document. Think of a map overview here:

[Insert Image: http://www.mobygames.com/images/shots/l/556488-cardboard-castle-windows-screenshot-level-selection-screens.jpg]
Please insert text "Level area screen from Cardboard Castle. Pay attention to the way that the levels are numerically sequenced."

Game World (level progress)

Okay. Here, you'll need to think about the way that the player can get through your game. Will they be able to select any stage they want and play through it?

Or…

Will your player's progress be contingent on completion of previous levels before they are able to progress to the next level?

Now it's your turn. You'll need to complete these areas for your own game. Take your time and try to think about the fun factor as you write.

Authentic Engagement #1: GDD: Setting Development

Once you've completed the part of your GDD focused on setting, share your ideas with the rest of us in the following authentic engagement.

Authentic Engagement #2: [Setting Feedback](#)

In addition to putting together the first draft of your Setting Development document and sharing your initial ideas with the rest of the class, spend some time this week to review the other components of your GDD. Hopefully, you're starting to get the hang of this review and revision process because the more elements we add to your GDD, the more intricate this process will become. That's the main reason we've set aside time in each module for you to edit your existing work. Some of you may be treating this as an unnecessary step and moving on to the next section of your GDD, but be aware that the revisions will eventually have to happen, it's just a question of how painful you want to make the process.

Authentic Engagement #3: [Review and Revision](#)

[END OF PAGE]--

Summary

In this section, we've played through one of the simplest game settings from the last few years of gaming. Then you were able to see some examples of the different components of game settings. Finally, you were able to work out the details of your own game setting. It's getting more serious, right?

[END OF PAGE]--

Module Bibliography

Required Film & Video

Listed below are all the videos you are <u>required</u> to watch for this module.

The Room on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/288160/

The Room on the App Store on iTunes. (n.d.). Retrieved April 5, 2015, from https://itunes.apple.com/ca/app/the-room/id552039496?mt=8

Readings

Listed below are all the readings you are <u>required</u> to read for this module.

The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

The Room on Steam. (n.d.). Retrieved April 5, 2015, from http://store.steampowered.com/app/288160/

The Room on the App Store on iTunes. (n.d.). Retrieved April 5, 2015, from https://itunes.apple.com/ca/app/the-room/id552039496?mt=8

The Room Review | Touch Arcade. (n.d.). Retrieved April 5, 2015, from http://toucharcade.com/2012/09/26/the-room-for-ipad-review/

[END OF PAGE]--

M5P2A: GDD: Setting Development

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	Students **engage** with the information by creating an artifact such as...	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

		Game		: create link to Assignment Dropbox for Step 4
		Podcast (listen)		
		Other		
Instructions		Step 1: Create a written document (in MS Word or a similar program) with the title "Setting Development" and save it with the following filename: GAMING_M5P2A-SettingDevelopment_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M5P2A-SettingDevelopment_GindopJ.docx Step 2: Create headers within the document with the following categories: Setting Game World (context) Game World (look and feel) Tangible Non-tangible Game World (areas) Game World (level progress) Use these headers to help guide your writing in Step 3. Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Step 4: Submit your finished document in the Assignment Dropbox.		

M5P2B: Setting Feedback

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game		TechNote: create a wiki named "Settings Summary" and format it into a table with the following headers: Student's Name, Game Name, Game World Name, Game World Properties (i.e., Where does your game take place?), Number of Levels (i.e., 1 - 100), Level progression (i.e., Linear, Open), Comments on Changes, Constructive Feedback
		Podcast (listen)		
		Other		
Instructions		Step 1: Go to this activity's wiki entitled, Settings Summary and contribute your game's details to the table provided. Here are the pieces of information you'll need to have ready to complete this step: game name, game world name, game world properties (i.e., where does your game take place?), number of levels (i.e., 1 - 100), level progression (i.e., linear, open). Everyone in the class will be adding to this table, so you'll get a chance to see how everyone else's ideas are starting to come together, too. If, at any point in your development process, you'd like to go back to this wiki to amend your entry, you are free to do so by simply changing the information in the any column next to your name. If you do end up making a change, please also write a few words about your reasoning for making the change in the column entitled, "Comments on Changes" and include the date of the change to make it easy for people (as well as for yourself) to see the timeline of the evolution of your game setting (this timeline could also end up being a valuable portfolio artefact for you). If you end up making a change more than once, just keep adding to your "Comments on Changes" (without deleting your original comments). Step 2: Browse the setting details others have added to the wiki. Pick at least a couple that strike you (for whatever reason) and then comment on why your choices stood out to you by including some feedback in the column entitled, "Constructive Feedback". This step isn't about just saying which ideas you liked and didn't like. Your task here is to provide constructive feedback to your colleagues to help them refine their choices. So, for example, you could comment on game world properties. Think of this as a process of helping one another refine your ideas. *Note:* the sooner you add your setting to the wiki, the higher the chance that you will get constructive feedback from your peers on your choices. Although this activity is something for you to complete in this module, you may find yourself coming back to the wiki throughout the course as you continue the refinement process. For this reason, we've made a link to all your course wikis part of the navigation menu for this course so they are easy for you to access, regardless of which module you're in.		

M5P3C: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	

		Fieldwork		**Notes:**
		Game		
		Podcast (listen)		
		Other: Review and Revision	Y	
	Instructions	Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki?		

Instructions

Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki?

Step 2: Review one other entry in the Game Title and Genre wiki that you haven't commented on yet and provide your colleague with some constructive feedback. And don't forget to take a moment to reflect on any new feedback you've received on your title and genre.

Step 3: Skim through your Story Breakdown and determine if there are any sections you want to revise at this stage in the process.

Step 4: Look through the current version of your Gameplay Breakdown and see if you want to evolve it any further at this stage.

Step 5: The bulk of your review and revision time this week may be on looking through your Character Development document and starting to refine the ideas you want to present in it. Or you may want to spend more time on other portions of your GDD that relate more closely to setting (since that's the topic we focused on during this module). In any case, spend at least half an hour reading through the latest draft of your character development document and start making notes on ideas you may want to expand upon later in the course, or changes where you feel there need to be revisions made.

Module 6: Gameplay I: Mechanics

Focus

In this module, we're going to take a look at game mechanics. Specifically, we are looking at the relationship between engagement and experience. This is arguably the most difficult section of the course, so we will be spending 2 weeks here. Get ready to take notes, and always try to make sense of the concepts through the game that you're designing.

Module Quotes

1. "World 2 introduces a limitless rewind mechanic—you can reverse any mistake, erasing the concept of "failure"— framed by a wistful reflection on perfect forgiveness between lovers."
    Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from http://www.gamasutra.com/view/feature/132147/

2. "[M]y challenge was not only to clearly present *Braid*'s mechanics and behaviors, but to help tell a story that was anything but literal: part anecdote, part artifice, part philosophy."
    Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from http://www.gamasutra.com/view/feature/132147/

3. "**Collision:** [The ground] is usually invisible, but it's the most important. It defines the actual physicality of the world. Without this, you would fall right through the floor."
    Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from http://www.gamasutra.com/view/feature/132147/

Intro

In this module, you will become familiarized with some elements of game mechanics. Yes, it is programming thinking but no, it is not programming. You need to know how to think procedurally when it comes to the way that your game comes together. We'll spend the next two modules on this, so take it slow, and fret not if things seem a bit tricky to understand at first.

Module Rationale

This section will allow you to establish some of the mechanics in your own games. Keep in mind that, generally, nothing happens in a game without you detailing that it happens. Characters do not actually 'pick up' items, the illusion of picking up is established, giving the player the feeling that something is picked up. This module will help you continue your quest to get 'behind' the game that you are creating.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Differentiate user experience design processes

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Playing with Mechanics	None	N/A	None	None	N/A	N/A
Part 2: Mechanics Development	GDD: Mechanics Development I	10%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	2.5 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development

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PART 1: *Playing with Mechanics*

Game mechanics—arguably the most important aspect of your game—is what will make or break your game. If you cannot detail the relationship between in-game elements, it will be difficult for you to create an engaging experience. You need to be able to understand how engagement works from a creation standpoint.

[Insert Image: http://learningworksforkids.com/wp-content/uploads/Braid-screen01.jpg]

Your mission today is to play two hours of: Braid

Once you've played Braid, read the following article about Braid & Game Mechanics and consider the:

1. Way that Game Mechanics were expressed specifically in Braid
2. Elements that should be enough to get you started detailing your own game mechanics

[Insert Link: Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from http://www.gamasutra.com/view/feature/132147/

[Insert Image: http://images5.alphacoders.com/285/285089.jpg] Please add text: "Screen from Braid. Great game, right?"

Okay, now it's time to think about development thinking for the mechanics of your game. Ready?

[END OF PAGE]--

PART 2: *Mechanics Development*

Now that you've seen/played the practical side of game mechanics, it's time to start working on your own mechanics. You're going to be looking at the following categories:

Game Mechanic(s)

Rules/Affordances: Under which constraints can your player act?

Visible to Players:

[Insert Image: http://www.smwiki.net/images/3/3e/Feather.PNG]
Please add text: "Cape Feather – Super Mario World. This feather embodies the "flight" rule. If the player collects this feather, then they are afforded the ability to fly."

[Insert Image: http://www.mariowiki.com/images/b/b4/SuperLeaf_3D.png]
Please add text: "Tanooki Tail Leaf – Super Mario Bros. 3 / Super Mario 3D World. This leaf also embodies the "flight" rule. If the player collects this leaf, then they are afforded the ability to fly."

The two examples above are instances where the game rules are visible to the player. Once the player collects these items, something happens. These are examples of visible affordances.

Invisible to Players

Physics: What kind of world is this anyway?

Back to our previous water level example, what kind of world is this? Think about gravity here. Will the player be flying, swimming, standing, walking, driving, teleporting, or cooking? Talk about how we will be navigating your world here. Feel free to talk about things like physics engines and collision detection. Oh… don't know what I mean by these?

Do you see what I mean? You'll have to think about the physics and collision in your game. You don't simply make a ground and place objects on top of it. Each component has to be TOLD what kind of component it is. It's like every piece of your game is a student—you have to teach it what you want it to do. Look at how long that second video is just to talk about collision detection for a ball. Aren't you glad we're not looking at coding in this course?

Movement: How can we navigate this world?

So… what about movement? How will your player move through your game? How will you articulate the way that your game handles movement, through the aforementioned physics?

In-Game Objects: Objects that are…in the game…

Okay, so when I was first asked to teach video game design, from a technical perspective, this was the most difficult concept to get across to students. I'm going to take my time here, so hopefully you get it. We're going to be looking at this from the perspective of the same game design program I used in the program I first designed…YoyoGames Gamemaker...

[Insert image: http://images.eurogamer.net/2012/articles//a/1/4/8/4/7/5/5/GameMakerStudio_DragandDropLevelEditing.png] Please add text: "Screen from YoyoGames™ GameMaker Studio—So, do you see the fourth green folder from the bottom of the left hand asset management screen? This is what I'll be talking about in this section. (Remember, this is a concept that spans across many game design programs.)"

Objects. Objects.

Okay, try to think about the things that your player can interact with, which are going to be the objects that you'll have to create in game. Want to build a scene where a character picks up a sword? Let's take a look at what that might mean in a program similar to GameMaker. Well, it's likely that you'll have to start by creating two objects:

Object 1: The character
Object 2: The sword

With me so far?

Okay, now here is where things might get complicated. Depending on the program that you're using, there is something else you'll need to think about. There are going to be properties associated with your sword, but, perhaps it's not necessary to apply those properties to the above objects. It may be useful to think of an object as it connects with its properties…what do I mean?

Take a look at only the leftmost column. You can see the object—Link. Even though the animation changes when the player presses the different directional buttons, generally there is only one Link Object throughout the game…right? No. Actually there is an additional sprite that we haven't yet considered:

Object 1: The character
Object 2: The sword
Object 3: The character with sword

With each of the above three objects, we've considered the different objects based on their properties. The character cannot "attack" without the sword; the sword cannot be "used" without the character connected to it; therefore, the third object is used so that we can attribute separate properties to that object. Are you with me so far?

Okay…if you've gotten that covered, it's time to show you something that may surprise you: a screenshot of the different objects (actually, these are just sprites) used in another Legend of Zelda game:

If you feel overwhelmed at this point, it's a good thing. This is why there are typically **teams** of people working on games. That said, you'll want to consider toning down the scale of your game so that you don't spend forever working on this section of your game design document. A couple of examples of your main character(s) might be sufficient. Use your best judgment and take your time here.

Player(s') Actions

Take a look at the following image again:

Do you see the character headings?

This is what you'll need to include in this section of your game design document. Think about the following:

What will the player be able to do?
Lift?
Throw?
Smash?

You can use these questions as category headings to start thinking about the different things that you'll allow your player to do.

Player(s') Interactions

Take a look at the following image again:

Think about with what the player will be doing these actions, against what, and so on:

What will your player be interacting with?
Lifting what?
Throwing what?
Smashing what?

You can use these questions as category headings to get you thinking about the different things that your player will be interacting with.

Authentic Engagement #1: GDD: Mechanics Development I

You're at about half of your GDD now, so the review and revision process is going to start feeling heavy but keep in mind that all the work you're doing to curate your game plan now is work you won't have to scramble to get done at the end of the course. The iterative process gives you a chance to spread out the workload and it also let's you focus on specific components of your project with greater care and attention.

Authentic Engagement #2: Review and Revision

[END OF PAGE]--
Summary
In this module, we've looked at experience-based perspectives on game mechanics. Next module, we'll look at how these mechanics can be modified for the purposes of monetization.

[END OF PAGE]---

Module Bibliography

Required Film & Video

Listed below are all the videos you are <u>required</u> to watch for this module.

Braid on Steam. (n.d.). Retrieved April 6, 2015, from http://store.steampowered.com/app/26800/

Readings

Listed below are all the readings you are <u>required</u> to read for this module.

Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from

http://www.gamasutra.com/view/feature/132147/

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

Braid on Steam. (n.d.). Retrieved April 6, 2015, from http://store.steampowered.com/app/26800/

Gamasutra - The Art Of Braid: Creating A Visual Identity For An Unusual Game. (n.d.). Retrieved April 6, 2015, from http://www.gamasutra.com/view/feature/132147/

[END OF PAGE]---

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M6P2A: GDD: Mechanics Development I

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

		Game		: create link to Assignment Dropbox for Step 4
		Podcast (listen)		
		Other		

Instructions		Step 1: Create a written document (in MS Word or a similar program) with the title "Mechanics Development I" and save it with the following filename: GAMING_M6P2A-MechanicsDevelopmentI_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be:

GAMING_M6P2A-MechanicsDevelopmentI_PetalbugO.docx

Step 2: Create headers within the document with the following categories:

Rules/Affordances
Visible to Players
Invisible to Players
Physics/Movement
In-Game Objects
Player(s') Actions
Player(s') Interactions

Use these headers to help guide your writing in Step 3.

Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build.

Step 4: Submit your finished document in the Assignment Dropbox. |

M6P2B: Review and Revision						
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I		Students **engage** with the information by creating an artifact such as...	Discussion	
	Portfolio Artifact	N			Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y			Journal	
	Social Consciousness	Y			Wiki	Y
	Personal Branding	Y			Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y			Presentation	
	Writing Exercise	Y			Online Conference	
	Video (watch)				Analysis/Critique	
	In the news				Video (create)	
	Case Study				Podcast (create)	
	Brainstorming				Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest				Other	
	Fieldwork		*Notes:*			

	Game	
	Podcast (listen)	
	Other: Review and Revision	Y
Instructions	Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki?	
	Step 2: Review one other entry in the Game Title and Genre wiki that you haven't commented on yet and provide your colleague with some constructive feedback. And don't forget to take a moment to reflect on any new feedback you've received on your title and genre.	
	Step 3: Consider whether you'd like to make any further changes to your Story Breakdown.	
	Step 4: Look through the latest draft of your Gameplay Breakdown and see if you want to evolve it any further at this stage.	
	Step 5: Give yourself enough time to thoroughly go through your Character Development document to see if any new ideas have come up. Add or take away as needed. This is your time to refine.	
	Step 6: Consider what you put together last week in your Setting Development document. Given the feedback you've received from your colleagues as well as the new information you've learned during this module, are there any changes you'd like to make to this (or any other) section of your GDD?	
	Step 7: Review one other entry in the Settings Summary wiki that you haven't commented on yet and provide your colleague with some constructive feedback. And don't forget to take a moment to reflect on any new feedback you've received on your game's setting.	

Module 7: Gameplay II: Monetization in Mechanics

Focus

In this module, we're going to take a look at game mechanics, again. Specifically, we are looking at the relationship between engagement and experience, and linking the processes of that programming that to monetization. It is one thing to engage users but it is another thing to engage a user to the point of spending money on in-game affordances. We'll revisit some different aspects of game mechanics to help you with your document this week.

Module Quotes

1. "Research has shown that putting even one intermediate currency between the consumer and real money, such as a "game gem" (premium currency), makes the consumer much less adept at assessing the value of the transaction."
   Gamasutra: Ramin Shokrizade's Blog - The Top F2P Monetization Tricks. (n.d.). Retrieved April 7, 2015, from http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/

2. "[Monetization] involves putting the consumer in a very uncomfortable or undesirable position in the game and then offering to remove this "pain" in return for spending money."
   Gamasutra: Ramin Shokrizade's Blog - The Top F2P Monetization Tricks. (n.d.). Retrieved April 7, 2015, from http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/

3. "The [reward removal] technique involves giving the player some really huge reward, that makes them really happy, and then threatening to take it away if they do not spend."
   Gamasutra: Ramin Shokrizade's Blog - The Top F2P Monetization Tricks. (n.d.). Retrieved April 7, 2015, from http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/

Intro

In this module, you will become familiarized with some of the more popular elements of game mechanics - monetization models. Yes, it is programming thinking, but now, it is also psychological programming and conditioning. It's important for you to consider this side of the video game industry.

Module Rationale

This section will allow you to consider whether the mechanics established in the previous module might have some use in the realm of monetization. We'll look at the relationship between engagement and experience, and link the processes of that programming to monetization. It is one thing to engage users but it is another thing to engage a user to the point of spending money on in-game affordances. We'll revisit some different aspects of game mechanics to help you with your document this week.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Playing with Monetization Mechanics	None	N/A	None	None	N/A	N/A
Part 2: Mechanics Development	GDD: Mechanics Development II	0%*	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Mechanics Feedback	5%	Wiki	30 minutes	Collaborative	None
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	2.5 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I

* This component is graded as part of the previous module's Mechanics Development I section of your GDD.

[END OF PAGE]--

PART 1: *Playing with Monetization Mechanics*

When considering the monetization of game mechanics—arguably the most elusive aspect of modern game design—you have to really think about whether or not this is something that you want in your game.

Your mission today is to play one and a half hours of: Puzzle Quest: Challenge of the Warlords

[Insert Image: http://static.gamespot.com/uploads/scale_super/gamespot/images/2007/280/829983-939313_20071008_001.jpg]

and one and a half hours of: Candy Crush

[Insert image: http://www.plusxp.com/wp-content/uploads/4_sugar-crush.jpg]

Once you've finished playing a bit of both games, read about game mechanics while keeping the following in mind:

Match game mechanics (puzzle swapping games)
[Insert Image: http://www.gamelogic.co.za/images/MatchGamesInfographic.png]
[Insert link: http://www.gamasutra.com/blogs/JonathanBailey/20150227/237544/Match_Game_Mechanics.php]

Tricks to monetization
[Insert Image: http://static.akamai.startapp.com/press/downloadcmsmodel/69dMYIJ-RgmG4ugZT7LilQ.png]
[Insert Link: http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/]

The process of creating Puzzle Quest 2
[Insert Image: http://www.d3press.us/files/Puzzle%20Quest%202/Screenshots/XBLA%20Screenshots/Pre-E3%20Screens/Multiplayer%20XBLA/TournamentMode02.bmp]
[Insert Link: http://www.gamasutra.com/view/feature/5838/the_road_to_puzzle_quest_2.php?print=1]

After finishing the readings, move on to the next section of the module where you'll watch a YouTube video that describes rules and affordances within the context of a non-puzzle game; actually…a fighting game.

[END OF PAGE]---
PART 2: Rules and Affordances

Okay, these last two modules have been heavy, I know. I'll show you a video next on rules and affordances that will hopefully answer some of the remaining questions in your head that may still linger. We'll look at an example from one of the greatest fighting video games of all time:

[Insert image: https://epicbuzz-cdn.storage.googleapis.com/uploads/image/image/316816/street_fighter_3rd_strike_wallpaper.jpg]

[Insert video link: https://www.youtube.com/watch?v=gbvXctfNYzc
Street Fighter 3: Third Strike

[END OF PAGE]---

And…here's one more video of game developers talking about how mechanics can be implemented in game design. Oh, before you click on the video below, make sure that once it starts, you turn on closed captions if you want to understand the content in English. Remember…Turn on Closed Captioning. Turn on Closed Captioning…I'm being serious.

[Insert video link: https://www.youtube.com/watch?v=EZLUgSJp6so]

After you watch (you'll probably have to watch them both twice), come back and continue work on your game mechanics.

Authentic Engagement #1: GDD: Mechanics Development II

Once you've completed the second part of your GDD focused on game mechanics, share your ideas with the rest of us in the following authentic engagement.

Authentic Engagement #2: Mechanics Feedback

Now is your time to look back on all the sections of your GDD to date and consider where you'd like to make amendments. Are there ideas you've been toying around with that you haven't added to the document yet? Do some of

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your existing concepts need work? Are some ideas just not fitting together? Or have you gotten so detailed that you're starting to feel like you've bitten off more than you can chew? Give yourself a chance to consider these questions in depth during the final authentic engagement of this module.

Authentic Engagement #3: Review and Revision

[END OF PAGE]--

Summary
In this module, we've looked at monetization-based perspectives on game mechanics. You should be well on your way to finishing your game mechanics section after this module. I told you that it would take you a while, so you got another module to determine whether anything you've decided requires any aspects of monetization.

[END OF PAGE]--

Module Bibliography

Required Film & Video

Listed below are all the videos you are <u>required</u> to watch for this module.

Gamasutra: Jonathan Bailey's Blog - Match Game Mechanics: An exhaustive survey. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/blogs/JonathanBailey/20150227/237544/Match_Game_Mechanics.php

Gamasutra: Ramin Shokrizade's Blog - The Top F2P Monetization Tricks. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/

Gamasutra - The Road To Puzzle Quest 2. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/view/feature/5838/the_road_to_puzzle_quest_2.php?print=1

GDD-BR 2010 [0D] Panel: Social Gaming, Virtual Currency and Ad Campaigns - YouTube. (n.d.). Retrieved April 7, 2015, from https://www.youtube.com/watch?v=EZLUgSJp6so

PuzzleQuest: Challenge of the Warlords on Steam. (n.d.). Retrieved April 7, 2015, from

http://store.steampowered.com/app/12500/

Rules & Affordances - The Parry - YouTube. (n.d.). Retrieved April 7, 2015, from

https://www.youtube.com/watch?v=gbvXctfNYzc

Readings

Gamasutra: Jonathan Bailey's Blog - Match Game Mechanics: An exhaustive survey. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/blogs/JonathanBailey/20150227/237544/Match_Game_Mechanics.php

Gamasutra: Ramin Shokrizade's Blog - The Top F2P Monetization Tricks. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/blogs/RaminShokrizade/20130626/194933/

Gamasutra - The Road To Puzzle Quest 2. (n.d.). Retrieved April 7, 2015, from

http://www.gamasutra.com/view/feature/5838/the_road_to_puzzle_quest_2.php?print=1

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

PuzzleQuest: Challenge of the Warlords on Steam. (n.d.). Retrieved April 7, 2015, from

http://store.steampowered.com/app/12500/

M7P2A: GDD: Mechanics Development II

Category	Item		Category	Item	
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

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		Game		<mark>TechNote</mark>: create link to Assignment Dropbox for Step 3
		Podcast (listen)		
		Other		
	Instructions	Step 1: Consider the readings and videos you've just gone through, as well as your experience playing both games at the start of this module as you return to the section of your GDD on Game Mechanics. Your challenge this week is to expand on the previous affordances you've outlined for your game, while considering which aspects of the game mechanics (if any) will embody modern monetization mechanics. Step 2: Save your revised document with the following filename: GAMING_M7P2A-MechanicsDevelopmentII_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M7P2A-MechanicsDevelopmentII_JerioP.docx Step 3: Submit your revised document in the <mark>Assignment Dropbox</mark>.		

M7P2B: Mechanics Feedback

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding			Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other:	
	Fieldwork		*Notes:*		

		Game		TechNote: create a wiki named "Mechanics" and format it into a table with the following headers: Student Name, Key Rule, Key Affordances (of the rule you just described), Comments on Changes, Constructive Feedback
		Podcast (listen)		
		Other		
	Instructions	Step 1: Go to this activity's wiki entitled, "Mechanics" and contribute your game's mechanics to the table provided. Here are the pieces of information you'll need to have ready to complete this step: key rule, key affordances (of the rule you just described). Everyone in the class will be adding to this table, so you'll get a chance to see how everyone else's ideas are starting to come together, too. If, at any point in your development process, you'd like to go back to this wiki to amend your entry, you are free to do so by simply changing the information in the column next to your name. If you do end up making a change, please also write a few words about your reasoning for making the change in the column entitled, "Comments on Changes" and include the date of the change to make it easy for people (as well as for yourself) to see the timeline of the evolution of the mechanics of your game (this timeline could also end up being a valuable portfolio artefact for you). If you end up making a change more than once, just keep adding to your "Comments on Changes" (without deleting your original comments). Step 2: Browse the details in the wiki on others' game mechanics. Pick at least a couple that strike you (for whatever reason) and then comment on why your choices stood out to you by including some feedback in the column entitled, "Constructive Feedback". This step isn't about just saying which you liked and didn't like. Your task here is to provide constructive feedback to your colleagues to help them refine their choices. So, for example, you could comment on the nature of the key rule they've chosen. Think of this as a process of helping one another refine your ideas. *Note*: the sooner you add the details of your game mechanics to the wiki, the higher the chance that you will get constructive feedback from your peers on your ideas. Although this activity is something for you to complete in this module, you may find yourself coming back to the wiki throughout the course as you continue the refinement process.		

M7P2C: Review and Revision

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

	Game	
	Podcast (listen)	
	Other: Review and Revision	Y
Instructions	Step 1: Revisit the Game Title and Genre wiki and see what new feedback, if any, your colleagues have left for you. Do you want to add anything to your evolving mind map or make any other tweaks to the wiki? Step 2: Review one other entry in the Game Title and Genre wiki that you haven't commented on yet and provide your colleague with some constructive feedback. And don't forget to take a moment to reflect on any new feedback you've received on your title and genre. Step 3: Consider whether you'd like to make any further changes to your Story Breakdown. Step 4: Look through the latest draft of your Gameplay Breakdown and see if you want to evolve it any further. Step 5: Give yourself enough time to thoroughly go through your Character Development document to see if any new ideas have come up. Add or take away as needed. This is your time to refine. Step 6: Given the feedback you've received from your colleagues on your Setting Development document, what changes are you considering making to this part of your GDD? Or have you decided to leave it as is and move on to your Settings section? Step 7: Review one other entry in the Settings Summary wiki that you haven't commented on yet and provide your colleague with some constructive feedback. Step 8: You've already been going through a sort of revision process of the first iteration of your Mechanics component, so this step was likely already taking place throughout this module. So take a couple more minutes to think about whether you're happy with how it's developing and then take a break. Module 8 is up next.

Module 8: Levels I: Synopsis and Introductory Materials

Focus

In this module, we're going to take a look at certain aspects of level design. Specifically, we are looking at the ways in which you will be presenting the levels to your player. It's almost like these descriptions that you've been reading at the start of these modules. You'll need to be clear about what you want to show your player, ensuring that it connects with what they will be doing.

Module Quotes

1. "As a level designer, you must become very aware of what satisfies the consumers if you want to be successful."
   Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

2. "Players buy games to be challenged. If there is no challenge, they might as well be interacting with their word processor or spreadsheet software."
   Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

3. "The hard part for many [level] designers is that what they find fun may not be what the target market finds fun."
   Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

Intro

In this module, you will begin crafting the synopsis and introductory materials for your game. Specifically, you'll be thinking about the nature of the way your players will be introduced to story concepts and looking at certain aspects of level design. Specifically, we'll be looking at the ways in which you will be presenting the levels of your game to your player. It's almost like these introductions that you've been reading at the start of our modules. You'll need to be clear about what you want to show your player, ensuring that it connects with what they will be doing.

Module Rationale

This section will allow you to consider how the user will become familiar with the materials discussed in the different areas of the game. A careful balance between challenge and potential to succeed will be addressed in this module.

Learning Outcomes
- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Distinguish the various skills and roles involved in the creation of video games
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Synopsis and Introductory Materials: Tucked into Narration	None	N/A	None	None	N/A	N/A
Part 2: Level Synopsis and Introductory Materials	GDD: Synopsis and Introductory Materials	2%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	3 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I and Mechanics Development II

[END OF PAGE]---

<u>PART 1:</u> *Synopsis and Introductory Materials: Tucked into Narration*

[Insert Image: https://metrouk2.files.wordpress.com/2015/04/bastion-wallpaper.jpg]

It's time to experience one of the greatest playable experiences that covers what you're responsible for textually representing in this module...

Your mission today is to play two hours of: Bastion

[Insert Image: http://www.openlettersmonthly.com/issue/wp-content/uploads/2011/11/bastion.jpg]

As you play this game, pay close attention to how you are taught what to do. Consider what needed to be written out in order to provide you with the playable experience. Also, think about what you weren't told, but you felt. These points will be a critical part of this module. Okay okay, go play it.

[END OF PAGE]--

PART 2: *Level Synopsis and Introductory Materials*

You're going to slowly make the transition from telling your developers what you want things to seem like, to what your player will experience. Think of this section of your GDD as the place to address all of the elements that the player should suspect, but not be told directly. Let's start with the first area, along with some examples.

Levels: Synopsis

For the purposes of your game design document, a level synopsis gives an overall detailed description of what a particular level is about, and what its purpose is, relative to your game. Some examples might help.

Alright, read these…

Level 1-1 introduces the player to the basic mechanics of the game, the different baddies, and potentially 3 power-up items (objects): The mushroom, the fire flower, and the star.

[Insert image: http://www.mariomayhem.com/downloads/mario_game_maps/super_mario_bros_maps/SuperMarioBros-World1-Area1.png]
Please add text: "The entire 1-1 level from the original Super Mario Bros. The previous description is only a fraction of the information that can be written about this stage."

How about this example:

On the clay tennis court, players will get a chance to experience increased ball speed, about +6 the amount of the original court.

[Insert image: http://www.thebuzzmedia.com/wp-content/uploads/2008/08/top-spin-3-clay-court-screenshot.jpg]
Please add text: "Screen from Top Spin 3. Notice that the synopsis still applies to games that have no intricate story involved."

Okay, one more:

In this first level, the player will experience all of the major power ups and abilities, until less than 5 minutes into the game, where "Death" comes in and takes them all away. This will give the player the understanding that obtaining different types of items is possible, while giving them a brief feel for how powerful they can eventually become.

[Insert Image: http://www.mobygames.com/images/shots/l/173929-castlevania-symphony-of-the-night-playstation-screenshot-death.jpg]
Please add text: "Screen from Castlevania: Symphony of the Night. This is what the player sees, though the description given previously is information the player may never know.

Do you see what I mean? To a certain degree, this section of your GDD is about revealing the game's secrets that the player should never know…but should feel. Write this section of your document with the following in mind: include all of the things that a developer or programmer will need to know, so that they can create the kind of experience you would like the player to *feel*.

[END OF PAGE]--

Levels: Introductory Material

This section should be a bit more fun. For the beginning of each level, this section of the GDD *is* what the player will see. Think about loading screens…

[Insert image: http://nerdexp.com/wp-content/uploads/2014/04/MK-Battle-Stages.png]
Please add text: "Pre-match screen from Mario Kart 64. Here the entire purpose of battle mode is shown. There is no guessing about what the player needs to do."

[Insert Image:
http://www.bensimonsen.com/blogspot_galleries/concept/cars2/data/images1/bs_cars2_loading_screen.jpg] Please add text: "Here is a concept drawing of a loading screen for Cars 2: The video game. Do you see how minimalistic the information is? There is just enough information to excite the player, while letting them know what needs to be done and only hinting at what can be done."

[Insert Image: http://i.ytimg.com/vi/MtJreWZzFV0/maxresdefault.jpg]
Please add text: "Loading Screen from Heavy Rain. In this case, the game is a mystery, so minimal information is given to the player, beyond how to function within the world."

Think about loading screens…

Think about what information your player needs just before they begin to play...

Think about what information your player would get excited about knowing before they play a level...

Remember, not all games require this type of handholding for players. You can choose to create a game that teaches through playing. You'll still need to write out the objectives though, which we'll handle in the next module. For now, take a look at some concepts from these two links to help you get started and when you're ready, click on the link to the next authentic engagement to read the details of your next task.

100 Level Design Ideas and Locations. (n.d.). Retrieved April 9, 2015, from

http://www.worldofleveldesign.com/categories/level_design_tutorials/100_level_design_ideas/100_level_design_ideas_and_locations.php

Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from

http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

Make no mistake, the upcoming parts of your GDD are going to be intense. You will be spending a lot of time here—don't feel bad about it, for it is a critical part of how your game will be 'felt'. This section is your chance to 'teach' your players your intent. It is the rare chance in the process where we're allowed to place explicit content, pertinent to gameplay, also designed in a way that engages the player. You don't want to bore your player here. This is the place to get your player 'hyped' up about what they will be playing.

Oh…you may wonder why this section is weighted the way it is (less of your total mark than other sections of your GDD)…well…these screens are important because you have to put a lot of thinking into 'what' the player will see, but, it may not be the place where the player spends most time. Know that, in animation, game design, and teaching, that it is often the things that the end user sees the least, which are the most important.

Authentic Engagement #1: GDD: Synopsis and Introductory Materials

And...It's that time again. Here's your opportunity to look back on how your GDD is evolving and make the changes you feel will make your game even better. Remember, this is a document you may eventually be proud enough to present to industry players in an effort to get your game developed for the masses.

Authentic Engagement #2: Review and Revision

[END OF PAGE]---

Summary

In this module, you've played a game with minimal textual synopsis and introductory materials. Then, you learned about what you'll be responsible for when developing the synopsis and the introductory materials for your levels. Finally, you started working through the two categories of level development for this module.

[END OF PAGE]--

Module Bibliography

Film & Video

Bastion on Steam. (n.d.). Retrieved April 16, 2015, from http://store.steampowered.com/app/107100/

Readings

100 Level Design Ideas and Locations. (n.d.). Retrieved April 9, 2015, from

http://www.worldofleveldesign.com/categories/level_design_tutorials/100_level_design_ideas/100_level_design_ideas_and_locations.php

Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from

http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

Additional Resources

Listed below are all the additional resources (e.g., software) you are required to use during this module.

100 Level Design Ideas and Locations. (n.d.). Retrieved April 9, 2015, from

http://www.worldofleveldesign.com/categories/level_design_tutorials/100_level_design_ideas/100_level_design_ideas_and_locations.php

Bastion on Steam. (n.d.). Retrieved April 16, 2015, from http://store.steampowered.com/app/107100/

Gamasutra - Beginning Level Design, Part 1. (n.d.). Retrieved April 9, 2015, from

http://www.gamasutra.com/view/feature/131736/beginning_level_design_part_1.php?page=2

[END OF PAGE]---

M8P2A: GDD: Synopsis and Introductory Materials

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

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	Game		
	Podcast (listen)		
	Other		
Instructions	Given the information you've learned in this module, it's time to apply it to the next section of your GDD. Step 1: Create a written document (in MS Word or a similar program) with the title "Levels" and save it with the following filename: GAMING_M8P2A-Levelsl_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M8P2A-Levelsl_SlivenD.docx Step 2: Create headers within the document with the following categories: Levels: Synopsis Levels: Introductory Material Use these headers to help guide your writing in Step 3. Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Remember that you'll have to fill in these headers for EACH level of your game. Step 4: Submit your finished document in the Assignment Dropbox.		

M8P2B: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game		
		Podcast (listen)		
		Other: Review and Revision	Y	
	Instructions	Step 1: By this stage in the review process, you're probably getting intimately aware of the content of your GDD. That's great, that's the point. So, instead of going through each step in the process every time, we'll just list the sections we'd like you to skim through to consider whether you want to make any additions or subtractions at this point: • Want to revise your Game Title or change the Genre it falls into? If so, pop into the Game Title and Genre wiki and remember to take any further feedback from colleagues into account (they are potentially your target market, after all). • Consider whether you'd like to make any further changes to your Story Breakdown. • Look through the latest version of your Gameplay Breakdown and see if you want to evolve it any further. • Have you had any more thoughts on the ways your characters are evolving? If you want to change any of the details in your Character Development document, now's the time. Step 2: Go back to the Settings Summary wiki and pick one entry that you haven't commented on yet. Comment on why this particular student's ideas for the setting of his/her game stand out to you by including some feedback in the column entitled, "Constructive Feedback". And given any additional feedback you've received from your colleagues on your Setting Development document, what changes are you considering making to this part of your GDD? Or have you decided to leave it as is and move on to your Settings section? Step 3: Take a look through your Mechanics Development document (the work you did in both parts I and II). Make the changes you feel are needed based on your evolving understanding of the section as well as on any new feedback you've received from classmates in the Mechanics wiki. Step 4: Go back to the Mechanics wiki one more time. Read through an entry to the wiki written by someone you haven't given feedback to yet. Comment on why your choice stands out to you by including some feedback in the column entitled, "Constructive Feedback". Like we said before, this step isn't about just saying which you liked and didn't like. Your task here is to provide constructive feedback to your colleagues to help them refine their		

	choices. So, for example, you could comment on the nature of the key rule they've chosen. Think of this as a process of helping one another refine your ideas. Once you're done with this step, move on to Module 9.

Module 9: Levels II: Objectives, Level Detail and Player Path

Focus

In this module, we're going to take a look at more aspects of level design. Specifically, we are looking at the ways in which you will be presenting the levels to your player. It's almost like these descriptions that you've been reading at the start of these modules. You'll need to be clear about what you want to show your player, ensuring that it connects with what they will be doing.

Module Quotes

1. "In most cases, the player's core method of interaction with your level will be navigation—the process of actually traversing the level."

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 1). (n.d.). Retrieved April 16, 2015, from http://www.gamasutra.com/blogs/DanTaylor/20130929/196791/Ten_Principles_of_Good_Level_Design_Part_1.php

2. "…[B]ut [with level design] it is important to understand the difference between "intuitive" and "fun".

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 1). (n.d.). Retrieved April 16, 2015, from http://www.gamasutra.com/blogs/DanTaylor/20130929/196791/Ten_Principles_of_Good_Level_Design_Part_1.php

3. "Modular design is your friend—a smart designer won't design a level, he/she will design a series of modular, mechanic-driven encounters, that can be strung together to create a level. And another level. And another level."

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 2). (n.d.). Retrieved April 16, 2015, from http://www.gamasutra.com/blogs/DanTaylor/20131006/197209/Ten_Principles_of_Good_Level_Design_Part_2.php?print=1

Intro

In this module, you will look at the objectives, level detail, and player path for your games. Specifically, we'll address the nature of the way that your players are introduced to your story concept.

Module Rationale

This section will allow you to further articulate, in greater detail, how the user will become familiar with the materials discussed in the different areas, or levels, of your game. This section continues to foster a systems thinking approach to level design.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Objectives, Level Detail and Play a Path	None	N/A	None	None	N/A	N/A
Part 2: Read about Levels	None	N/A	None	None	N/A	N/A
Part 3: Objectives, Level Detail and Player Path	GDD: Objectives, Level Detail and Player Path	3%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Levels Feedback	5%	Wiki	30 minutes	Collaborative	None
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	3 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I and Mechanics Development II and Synopsis and Introductory Materials

[END OF PAGE]---

PART 1: *Objectives, Level Detail and Play a Path*

[Insert Image: http://www.gamasutra.com/db_area/images/igf/Parallax/screenshot.jpg]

It's time to have one of the greatest playable experiences that focuses on experience-based objectives, through level detail, as it guides the player on a path.

Your mission today is to play two hours of: Parallax

[Insert Image: http://cloud-4.steamusercontent.com/ugc/540767218163812970/D000627DD7CE8D40000C524E783F5B577DD7DB86/]

Play this game, and pay close attention to how you are taught what to do. While you're playing, think about the objectives, the level detail, and the player path. Remember the section that we covered regarding tunneling and those other theories? This is where they should start to make sense. Think of how you, as the player, "know" what to do, and how you've been guided to feel that way.

[END OF PAGE]---

PART 2: Read about Levels

Levels: Objectives

For this next section of your GDD, you'll be writing out the objectives for each level of your game. Think about what the player(s) will need to do.

[Insert Image: http://www.mobygames.com/images/shots/l/335068-fallout-3-windows-screenshot-loading-screens.jpg]
Please add text: "Screen from Fallout 3. Notice how much more information is placed all over. This world is so big, that this information is designed to keep you focused on your objectives…if that's something you're interested in."

[Insert Image: http://resource.appgamer.com/library/2015/142786681208.jpg]
Please add text: "Screen from Sick Bricks. Notice how this screen gives the player just enough information to know what needs to be done, once this screen goes away.

Think about the following question:

How can the player 'win the level'?

Levels: Level Detail

In this subsection, think about your step-by-step level navigation. You can feel free to draw concept images here, if that's one of your skillsets.

[Insert Image: http://www.snesmaps.com/maps/ChronoTrigger/ChronoTrigger1000LeeneSquare.png]
Please add text: "Screen from Chrono Trigger. This level, Leene Square, is one area in the game where no battles take place."

[Insert Image: http://www.vgmaps.com/Atlas/SuperNES/ChronoTrigger-600AD-GuardiaForest.png]
Please add text: "Screen from Chrono Trigger. This level, Guardia Forest, is an area in the game where battles can take

If you're starting to feel like the other sections were easy, compared to these ones, you're right—this is what is most difficult about in-game design—making concrete decisions without feedback until it is manifested into something playable.

Keep in mind that, this section will differ depending on the genre of game that you chose. It may be more useful to provide imagery for a puzzle game than it would be for a visual graphic novel. This is where your knowledge of genre will be put to the test. You don't have to worry though, do a search for level descriptions of a game that embodies your same genre (yes, there will be one that is similar to yours), and then read how it's articulated. Try to answer this question as you write/draw:

What makes up each level in your game*?*

Levels: Player Path

Okay, once you've decided on your levels, it's time to think about how the player will progress through each level. Some examples will help you here:

Please add text: "Screen from New Super Mario Bros. Wii U. Notice how this first world, gives the player no path choices until after the second level has been completed. In this case, the player must progress in a certain way, following a predetermined path.

Please add text: "Screen from Odin Sphere. Here, the game story is told (played through) once the young girl "reads" each book. This is a screen from the beginning of the game."

Please add text: "Do you see the difference now? There are more books, but they only appear as you complete the previous story. You are able to progress to the next story, once the previous is completed."

You don't have to go in order though. What about other kinds of games?

[Insert Image: http://dancedancenow.com/wp-content/uploads/2015/01/720p-hd-dance-dance-revolution-2.jpg?203147]
Please add text: "You see here, how you are free to select from many stages, and the game is designed to provide you with the freedom to choose. Also, pay attention to the way that the difficulty is visually represented. More on that later…"

[Insert Image: http://static.giantbomb.com/uploads/original/0/329/1376889-psogl004.jpg]
Please add text: "Screen from NBA Jam: Tournament Edition. Here, you can see that players are able to choose specific teams. There is no linear path to follow here—just a decision, and a basketball match, that allows you to play with your selected asymmetric team."

[Insert Image: http://www.gametronik.com/site/rubriques/abandonware_action/Jeux/Urban%20Chaos%20(fr)/Urban%20Chaos.PNG]
Please add text: "Screen from Urban Chaos. In this sandbox-style action game, you are able to roam freely and feel as though you can do anything. Objectives activate once you choose them, but, there is always a "rest" period where you are once again free to roam."

If you are still having difficulty articulating how the player progresses through your levels, you should try and read a walkthrough found on Gamefaqs.com, one of the best resources for video game intricacy on the web. Head over there, find a game that you *think you are a master of*, and read just how in-depth things are detailed in terms of what the player can do.

Remember, not all games require this type of handholding for players. You can choose to create a game that teaches through playing. You'll still need to write out the objectives though, so that you don't forget what you'll want the player to do in each level. Here are some resources to help you:

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 1). (n.d.). Retrieved April 16, 2015, from

http://www.gamasutra.com/blogs/DanTaylor/20130929/196791/Ten_Principles_of_Good_Level_Design_Part_1.php

PART 3: Objectives, Level Detail and Player Path

Okay, if you're not in love with the game that you've chosen to develop, this module might be a bit difficult. Conversely, if you are in love with the game you've chosen to develop, this module might be a bit difficult. You're either going to run into the problem of coming up with interesting things for your player to do, or you'll have the problem of not knowing when to stop coming up with interesting things for your player to do. Remember what one of your readings for this module emphasized: start with one level at a time. Take your design one level at a time.

Authentic Engagement #1: GDD: Objectives, Level Detail and Player Path

Once you've completed your overview of the objectives, levels and path of your game, share your ideas with the rest of us in the following authentic engagement.

Authentic Engagement #2: Levels Feedback

Let's dive into your revisions next. Keep in mind that even though the number of GDD elements you have to revise increases with each week, the time estimated to complete your revisions will be staying at about three hours. This is because you'll likely feel more confident with the initial parts of your GDD at this stage since you've had a few weeks to consider any changes you wanted to make to them. It's not always going to be the case that you'll be spending most of your revision time on the newest component of the GDD but you may find that to be the case as you begin wrapping things up.

Authentic Engagement #3: Review and Revision

[END OF PAGE]--

Summary

In this module, you have extended the information regarding the level design in your game. It's important to delve deeper into the mind of an experience creator—you must become comfortable with this, or, your game will not feel like a game. I'm sure there is at least one game you can think of that didn't hook you in the way you had hoped. Try to be as engaging in your thought process surrounding the design as you feel when you play through experiences that remain with you to this day.

[END OF PAGE]--

Module Bibliography

Required Film & Video

Parallax on Steam. (n.d.). Retrieved April 16, 2015, from http://store.steampowered.com/app/325060/

Readings

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 1). (n.d.). Retrieved April 16, 2015, from

http://www.gamasutra.com/blogs/DanTaylor/20130929/196791/Ten_Principles_of_Good_Level_Design_Part_1.php

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 2). (n.d.). Retrieved April 16, 2015, from

http://www.gamasutra.com/blogs/DanTaylor/20131006/197209/Ten_Principles_of_Good_Level_Design_Part_2.php?print=1

GameFAQs - Video Game Cheats, Reviews, FAQs, Message Boards, and More. (n.d.). Retrieved April 16, 2015, from

http://www.gamefaqs.com/

Additional Resources

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 1). (n.d.). Retrieved April 16, 2015, from

http://www.gamasutra.com/blogs/DanTaylor/20130929/196791/Ten_Principles_of_Good_Level_Design_Part_1.php

Gamasutra: Dan Taylor's Blog - Ten Principles of Good Level Design (Part 2). (n.d.). Retrieved April 16, 2015, from

http://www.gamasutra.com/blogs/DanTaylor/20131006/197209/Ten_Principles_of_Good_Level_Design_Part_2.php?print=1

GameFAQs - Video Game Cheats, Reviews, FAQs, Message Boards, and More. (n.d.). Retrieved April 16, 2015, from

http://www.gamefaqs.com/

Parallax on Steam. (n.d.). Retrieved April 16, 2015, from http://store.steampowered.com/app/325060/

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M9P3A: GDD: Objectives, Level Detail and Player Path					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	Students engage with the information by creating an artifact such as...	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

		Game		: create link to Assignment Dropbox for Step 4
		Podcast (listen)		
		Other		
	Instructions	Step 1: Create a written document (in MS Word or a similar program) with the title "Levels II" and save it with the following filename: GAMING_M8P3A-LevelsII_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M8P3A-LevelsII_PoonerV.docx Step 2: Create headers within the document with the following categories: Levels: Objectives Levels: Level Detail Levels: Player Path Use these headers to help guide your writing in Step 3. Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Remember that you'll have to fill in these headers for EACH level of your game. Step 4: Submit your finished document in the Assignment Dropbox.		

M9P3B: Levels Feedback

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding			Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other:	
	Fieldwork				

		Game		<mark>TechNote:</mark> create a wiki named "<mark>Levels</mark>" and format it into a table with the following headers: Student Name, Key Level, Key Objectives, Clarity of the Player Path, Comments on Changes, Constructive Feedback
		Podcast (listen)		
		Other		
	Instructions	Step 1: Go to this activity's wiki entitled, "<mark>Levels</mark>" and contribute the details of your game's levels to the table provided. Here are the pieces of information you'll need to have ready to complete this step: key level, key objectives, clarity of the player path.		

Instructions

Step 1: Go to this activity's wiki entitled, "<mark>Levels</mark>" and contribute the details of your game's levels to the table provided. Here are the pieces of information you'll need to have ready to complete this step: key level, key objectives, clarity of the player path.

Everyone in the class will be adding to this table, so you'll get a chance to see how everyone else's ideas are starting to come together, too.

If, at any point in your development process, you'd like to go back to this wiki to amend your entry, you are free to do so by simply changing the information in the "Levels" column next to your name. If you do end up making a change, please also write a few words about your reasoning for making the change in the column entitled, "Comments on Changes" and include the date of the change to make it easy for people (as well as for yourself) to see the timeline of the evolution of your objectives, level detail and player path (this timeline could also end up being a valuable portfolio artefact for you). If you end up making a change more than once, just keep adding to your "Comments on Changes" (without deleting your original comments).

Step 2: Browse the entries others have added to the wiki. Pick at least a couple that strike you (for whatever reason) and then comment on why your choices stood out to you by including some feedback in the column entitled, "Constructive Feedback". This step isn't about just saying which you liked and didn't like. Your task here is to provide constructive feedback to your colleagues to help them refine their choices. This time, you're commenting on any of the nature of the objectives, level detail, and/or player path. Think of this as a process of helping one another refine your ideas.

M9P3C: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game	
		Podcast (listen)	
		Other: Review and Revision	Y
Instructions		Step 1: Here's the list of sections we'd like you to skim through to consider whether you want to make any additions or subtractions at this point: • Want to revise your Game Title or change the Genre it falls into? If so, pop into the Game Title and Genre wiki and remember to take any further feedback from colleagues into account (they are potentially your target market, after all). • Consider whether you'd like to make any further changes to your Story Breakdown. • Look through the latest version of your Gameplay Breakdown and see if you want to evolve it any further. • Have you had any more thoughts on the ways your characters are evolving? If you want to change any of the details in your Character Development document, now's the time. Step 2: Go back to the Settings Summary wiki and pick one additional entry that you haven't commented on yet. Comment on why this particular student's ideas for the setting of his/her game stand out to you by including some feedback in the column entitled, "Constructive Feedback". And given any additional feedback you've received from your colleagues on your Setting Development document, are you making any more changes to this part of your GDD? Step 3: Consider whether you want to make any further amendments to your Mechanics Development document. Make the changes you feel are needed based on your evolving understanding of the section as well as on any new feedback you've received from classmates in the Mechanics wiki. Step 4: Go back to the Mechanics wiki and pick one more entry to comment on (focus on one you haven't commented on yet, and perhaps challenge yourself by picking one that no one has commented on yet). Provide some constructive feedback to that student in the "Constructive Feedback" column. Step 5: Spend at least half an hour focusing on your Levels document. Now that you've had some time apart from your ideas on synopsis and the introductory material, notice if there are any changes you want to make

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	here. Start to think, in general, about how all your ideas are weaving together. Do they compliment one another? Are there some ideas you have that you initially thought fit into the big picture but that now seem out of place in your design. If so, this is the time to make some changes.

Module 10: Interface I: Structure

Focus

In this module, we're going to take a look at user interface (UI). First, we're going to get you to start thinking about the structure of the containers that will contain your content. It's important that you pay attention to form and function through the visual aesthetic of your game.

Module Quotes

1. "[T]he role of a good UI is to provide relevant information clearly and quickly, and to get out of the way once it has done its job."
    > Game UI By Example: A Crash Course in the Good and the Bad - Tuts+ Game Development Tutorial. (n.d.). Retrieved April 16, 2015, from http://gamedevelopment.tutsplus.com/tutorials/game-ui-by-example-a-crash-course-in-the-good-and-the-bad--gamedev-3943
2. "[T]he programmer (or creative director, or whoever in your team has the most direct role in shaping the playing experience of your game) should be responsible for making the [User Interface]".
    > Game UI By Example: A Crash Course in the Good and the Bad - Tuts+ Game Development Tutorial. (n.d.). Retrieved April 16, 2015, from http://gamedevelopment.tutsplus.com/tutorials/game-ui-by-example-a-crash-course-in-the-good-and-the-bad--gamedev-3943
3. "[User Interface] design is a logical job that you shouldn't be scared of doing. Pay attention to the games you play, take note of how they present information and how that makes you feel."
    > Game UI By Example: A Crash Course in the Good and the Bad - Tuts+ Game Development Tutorial. (n.d.). Retrieved April 16, 2015, from http://gamedevelopment.tutsplus.com/tutorials/game-ui-by-example-a-crash-course-in-the-good-and-the-bad--gamedev-3943

Intro

In this module, you will look at the structure of your user interface (UI). Specifically, the physical space where textual information will appear for the player.

Module Rationale

This section will allow you to begin to structure how each area of your game will look from a UI perspective. We will only be thinking about how it will visually be represented, and not the content yet. We're essentially going to get you to start thinking about the structure of the containers that will contain your content. It's important that you pay attention to form and function through the visual aesthetic of your game.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Look at it!	None	N/A	None	None	N/A	N/A
Part 2: User Interface: Menus and Gameplay	None	N/A	None	None	N/A	N/A
Part 3: UI: Structure	GDD: Interface (Structure)	1%	Word Processing Software, Image Creation Software of your choice, Assignment Dropbox	2 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	3 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I and Mechanics Development II and Synopsis and Introductory Materials and Objectives, Level Detail and Player Path

PART 1: *Look at it!*

It's time for you to take a look at some user interfaces to start brainstorming the structure of your menus…

[Insert Image: http://thisisjust.me/blogging/wp-content/uploads/2013/06/the_destiny_02.jpg]

[Insert Image: http://thisisjust.me/blogging/wp-content/uploads/2013/06/the_destiny_04.jpg]

and gameplay…

[Insert Image: http://thisisjust.me/blogging/wp-content/uploads/2013/06/the_destiny_03.jpg]

These are images from Tom Clancy's The Division. Take a look at the way that the information that the user needs is blended into the game.

If you consider every game we've played in this course so far, each one has a well-thought-out menu structure that strives to keep you engaged. Two games, like Parallax and Limbo, took approaches that the developers felt necessary to the experience—having little to no game-based UI elements at all.

Your thinking in this module should be simple—where do I want my information to show up? We'll worry about <u>what</u> information in a different module. It's time to think outside of games for a moment.

[END OF PAGE]---

PART 2: *User Interface: Menus and Gameplay*

Take a look, in depth, at the following articles, which do include video.

First up, is one of the more difficult aspects of video game UI that you'll need to read before thinking about the structure of your in-game menus and your gameplay-based UI content. Take your time with this one:

[Insert Image: http://www.thewanderlust.net/blog/wp-content/uploads/2010/03/diegeticMap.jpg]

[Insert Link: Gamasutra: Anthony Stonehouse's Blog - User interface design in video games. (n.d.). Retrieved April 16, 2015,

from http://gamasutra.com/blogs/AnthonyStonehouse/20140227/211823/User_interface_design_in_video_games.php]

Next…

[Insert Image: https://cdn.tutsplus.com/gamedev/authors/michael-james-williams/Oblivion_UI_Screen_Space.jpg]

Let's take a look at some examples of bad UI design, in conjunction with the good ones, so you can get a sense of some of the things to avoid when deciding on the structure of your game UI.

[Insert Link: Game UI By Example: A Crash Course in the Good and the Bad - Tuts+ Game Development Tutorial. (n.d.).

Retrieved April 16, 2015, from http://gamedevelopment.tutsplus.com/tutorials/game-ui-by-example-a-crash-course-in-the-

good-and-the-bad--gamedev-3943]

Okay…

[Insert Image: http://a.fastcompany.net/multisite_files/codesign/imagecache/slideshow_large/slides/8sifteo-Lead-A.jpg]

Here is an example from 14 other areas, including video games, to help you consider form and function in the structure of your UI.

[Insert Link: 1 | 14 Of The Year's Best Ideas In Interface Design | Co.Design | business + design. (n.d.). Retrieved April 17, 2015, from http://www.fastcodesign.com/1665704/14-of-the-years-best-ideas-in-interface-design#1]

Are you thinking about where things should go in your game yet?

[END OF PAGE]--

PART 3: UI: Structure

It's your turn to start drawing out the structure of your UI. It will be more effective if you simply create the containers that will hold specific information, rather than trying to think of them both at the same time. Here's an image from what you learned in the previous section about how to go about placing items.

[Insert Image: http://www.gamasutra.com/db_area/images/feature/4286/terminology.gif]

Keep the next article open as you start determining where your design needs go in these two areas: menus and gameplay.

[Insert reading: Gamasutra - Game UI Discoveries: What Players Want. (n.d.). Retrieved April 17, 2015, from http://www.gamasutra.com/view/feature/4286/game_ui_discoveries_what_players_.php?print=1

Get started, and keep in mind just how much space you should take up with your UI.

Authentic Engagement #1: GDD: Interface (Structure)

And now it's time for the editing work to begin. Stay focused. This is when things can get hairy, so keep your vision of your game fixed in your mind as you continue to refine the details.

Authentic Engagement #2: Review and Revision

[END OF PAGE]--

Summary

In this module, you have extended the information regarding the 'real estate' that will populate your screen for the user to learn. Written content is critical, but just as critical are the locations where that written content is placed. This process may be foreign, but, you need to understand that this is part of the process for any visual storyteller.

[END OF PAGE]--

Module Bibliography

Readings

1 | 14 Of The Year's Best Ideas In Interface Design | Co.Design | business + design. (n.d.). Retrieved April 17, 2015, from

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http://gamasutra.com/blogs/AnthonyStonehouse/20140227/211823/User_interface_design_in_video_games.php

Gamasutra - Game UI Discoveries: What Players Want. (n.d.). Retrieved April 17, 2015, from

http://www.gamasutra.com/view/feature/4286/game_ui_discoveries_what_players_.php?print=1

Game UI By Example: A Crash Course in the Good and the Bad - Tuts+ Game Development Tutorial. (n.d.). Retrieved April

16, 2015, from http://gamedevelopment.tutsplus.com/tutorials/game-ui-by-example-a-crash-course-in-the-good-and-the-

bad--gamedev-3943

HUDS+GUIS. (n.d.). Retrieved April 17, 2015, from http://www.hudsandguis.com/

Tom Clancy's The Division UI done right | This is just Glimy blogging. (n.d.). Retrieved April 17, 2015, from

http://thisisjust.me/blogging/tom-clancys-division-ui/

Additional Resources

1 | 14 Of The Year's Best Ideas In Interface Design | Co.Design | business + design. (n.d.). Retrieved April 17, 2015, from

http://www.fastcodesign.com/1665704/14-of-the-years-best-ideas-in-interface-design#1

Gamasutra: Anthony Stonehouse's Blog - User interface design in video games. (n.d.). Retrieved April 16, 2015, from

http://gamasutra.com/blogs/AnthonyStonehouse/20140227/211823/User_interface_design_in_video_games.php

Gamasutra - Game UI Discoveries: What Players Want. (n.d.). Retrieved April 17, 2015, from

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bad--gamedev-3943

HUDS+GUIS. (n.d.). Retrieved April 17, 2015, from http://www.hudsandguis.com/

Tom Clancy's The Division UI done right | This is just Glimy blogging. (n.d.). Retrieved April 17, 2015, from

http://thisisjust.me/blogging/tom-clancys-division-ui/

[END OF PAGE]--

M10P3A: Interface (Structure)				
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		***Notes:***		
	Game				
	Podcast (listen)		TechNote: create link to Assignment Dropbox for Step 4		
	Other				

Instructions	In this authentic engagement, you are responsible for detailing the structure of the different user interfaces in your games, in pictorial or written form.
	Step 1: Considering the different UI examples you've seen throughout this module (and in your own gaming experiences), create a document (in MS Word or a similar program) with the title "Interface" and save it with the

following filename: GAMING_M10P3A-InterfaceI_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be:

GAMING_M10P3A-InterfaceI_SnivelX.docx

Step 2: Create headers within the document with the following categories:

UI: Menus
UI: Gameplay

Use these headers to help guide your work in Step 3.

Step 3: Fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Draw/sketch/detail the containers that will hold your menu content using whatever technology you feel most comfortable with. Think about creating a cup that will hold a liquid. We're just building cups in this module—we'll work on the liquid in the next section.

Step 4: Submit your finished document in the <mark>Assignment Dropbox</mark>.

M10P3B: Review and Revision						
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game	
		Podcast (listen)	
		Other: Review and Revision	Y

Instructions	Step 1: Scan through the following components of your GDD to determine if there are any further changes you'd like to make to them: • Game Title and Genre • Story Breakdown • Gameplay Breakdown • Character Development Step 2: Go back to the Settings Summary wiki and pick one additional entry to comment on (one you haven't commented on yet). And given any additional feedback you've received from your colleagues on your Setting Development ideas, what additional changes, if any, are you making to it? Step 3: Go back to the Mechanics wiki and pick one more entry to comment on (focus on one you haven't commented on yet, and perhaps challenge yourself again by picking another that no one has commented on yet). Provide some constructive feedback to that student and then review any additional feedback you've received on your mechanics ideas. Make the changes you feel are needed based on your evolving understanding of the section, as well as on any new feedback you've received from classmates. Step 4: Review your Synopsis and Introductory Materials document and decide whether it needs any changes. Step 5: Go back to the Levels wiki and give one other student some constructive criticism on his/her ideas on synopsys and introductory materials. If you've gotten some more feedback from others since last week, decide whether you want to take their ideas to heart and incorporate some changes to your Levels I document before moving any further into your game development. Step 6: Have you changed your mind on how you've structured your game objectives, level detail or player path? If so, take about half an hour to comb through your Levels II document and make any changes you feel would improve this section of your GDD.

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Module 11: Interface II: Content

Focus

In this module, we're going to take a look at user interface (UI) developed in Module 10. Then, we will start to populate that content with text, keeping in mind how these decisions may impact the play experience for your player.

Module Quotes

1. "The word "usability" also refers to methods for improving ease-of-use during the design process."
   Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-introduction-to-usability/
2. "It matters little that something is easy if it's not what you want."
   Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-introduction-to-usability/
3. "There's no such thing as a [player] reading […] or otherwise spending much time trying to figure out an interface."
   Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-introduction-to-usability/

Intro

In this module, you will start populating the spaces menus and in-game 'real estate' established in Module 10, keeping in mind how these decisions may impact the play experience for your player.

Module Rationale

The space allocated in Module 10 should guide you to start thinking about concise text, text that will give the player the necessary information to progress through different parts of your game. As you'll see, it is normal for the 'real estate' containers to be adjusted to allow for text.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Differentiate user experience design processes

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Look at it 2!	None	N/A	None	None	N/A	N/A
Part 2: User Interface: Menus and Gameplay	None	N/A	None	None	N/A	N/A
Part 3: User Interface: Content	GDD: Interface (Content)	1%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	User Interface Feedback	5%	Wiki	1 hour	Collaborative	None
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	3 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I and Mechanics Development II and Synopsis and Introductory Materials and Objectives, Level Detail and Player Path and Interface (Structure)

[END OF PAGE]--

PART 1: Look at it 2!

It's time for you to retake a look at a few more user interfaces to think about how much TEXT fits within each container…

[Insert Image http://www.siliconera.com/wordpress/wp-content/uploads/2008/02/wildarmsxf.jpg]
Please add text: "Screen from Wild Arms XF. Notice that some content has been abbreviated (bottom), while others, like the turn order (rightmost side) contains only images, rather than text that keeps telling you who is next. In-game, it would be easier to see it as turn order, as the line shifts (actually, it animates) as the turn ends for the character in question. This is something you'll need to consider. Okay…how about this one…

[Insert Image: http://www.nowgamer.com/wp-content/uploads/2014/07/381063.jpg]
Please add text: "Screen from Divinity: Original Sin. Here, we have a menu, which is 'called upon' by the player (using the 'M' key). It is important to note, that action continues underneath, tunneling the player to plan strategies before entering the heat of battle. Look at the detail of the text here. Oh…the bottom right floating transparent text panel gives game pertinent information to the player. This is an extreme example, as almost EVERY panel that you see on screen is customizable. The game has been made so well, that it is possible for the player to still succeed through the game with the many menu adjustment affordances.

You don't have to include much text for a player to understand what's going on…here's a question? What's going on in this picture?
[Insert Image: http://blazekick.com/wp-content/uploads/2014/11/Sly_ElJefeBossBattle01.jpg]

The answer is simple. Some sort of boss battle is going on. How can we tell that? Well…

There is no other UI information on screen other than two images with what appear to be some sort of energy bar underneath. Since the UI image on the left matches that of the character, it is highly likely that the other bar belongs to whom we're fighting. If you've played this game, you'll know that we're fighting El Jefe. If you haven't played the game…look far into the back, at the center of the image, and you'll see El Jefe right behind six fireballs, which appear to be heading toward the player…look above the smoke found at the origin of the fireballs. You'll find him…

Your thinking in this module should be simple—what information is enough to inform AND engage the player?

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PART 2: User Interface: Menus and Gameplay

Read through the following articles, one of which has little to no explicit detail connecting to video games. (You'll understand why in a minute.)

First up? You need to think about how to cultivate your text in a way that connects best with your intended audience. Believe it or not, it is beyond games—this is something that is common to many areas of media production. We're getting into storytelling here. Time to step out of our comfort zone for a moment:

[Insert Image: http://www.superutils.com/wp-content/uploads/2011/10/3-win-eight-metro-ui-switcher-new-start-screen.png]

[Insert Link: Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-introduction-to-usability/

Next…

We'll change it up a bit here. I want you to take a look at some of the forums that talk about text in UI design. It will give you a more accurate picture of how some people see text in video games.

[Insert Image: http://gamesymbol.com/Image/covers/stella-deus-the-gate-of-eternity/stella-deus-the-gate-of-eternity-image601352.jpg]
Please add text: "Screen from Stella Deus. Notice, here, there is quite a bit going on, but not too much textually. Remember, you don't want to overwhelm your player, but you do want them to be informed…depending on the type of game you're designing."

Let's take a look at some examples of bad UI design, in conjunction with the good ones, so you can get a sense of some of the things to avoid when deciding on the structure of your game UI.

[Insert Link: Tiny on-screen text in modern video games | Wrong Planet Autism Community Forum. (n.d.). Retrieved April 20, 2015, from http://www.wrongplanet.net/forums/viewtopic.php?t=237307]

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[END OF PAGE]--

PART 3: User Interface: Content

It's your turn to start filling in the text for the containers you've created in Module 10. Oh…you'll have to do that module before this one, if you've jumped here all willy-nilly.

Take your time developing this section of your GDD. According to the articles from the last section, there is some testing to be done regarding the decisions that you make here…after this course is over, of course.

Authentic Engagement #1: GDD: Interface (Content)

Once you've completed your additional work on your UI, share your ideas with the rest of us in the following authentic engagement.

Authentic Engagement #2: User Interface Feedback

And finally, take some time before you complete this module to review and revise your GDD.

Authentic Engagement #3: Review and Revision

[END OF PAGE]--

Summary
In this module, you have extended the information regarding the level design in your game. It's important to delve deeper into the mind of an experience creator—you must become comfortable with this, or, your game will not feel like a game. I'm sure there is at least one game you can think of that didn't hook you in the way you had hoped. Try to be as engaging in your thought process surrounding the design as you feel when you play through experiences that remain with you to this day.

[END OF PAGE]--

Module Bibliography

Readings

Tiny on-screen text in modern video games | Wrong Planet Autism Community Forum. (n.d.). Retrieved April 20, 2015, from

http://www.wrongplanet.net/forums/viewtopic.php?t=237307

Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-

introduction-to-usability/

Additional Resources

Tiny on-screen text in modern video games | Wrong Planet Autism Community Forum. (n.d.). Retrieved April 20, 2015, from

http://www.wrongplanet.net/forums/viewtopic.php?t=237307

Usability 101: Introduction to Usability. (n.d.). Retrieved April 20, 2015, from http://www.nngroup.com/articles/usability-101-

introduction-to-usability/

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M11P3A: GDD: Interface (Content)

			Students engage with the information by creating an artifact such as...		
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I		Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y
	Fieldwork		*Notes:*		

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		Game		
		Podcast (listen)		
		Other		

Instructions	In this authentic engagement, you are responsible for revisiting the work you did in Module 10 so that you can populate your content containers with text. You'll then take one step further in the development of this section of your GDD by comparing it to another game (commercially available) in the same genre. Step 1: Create a document (in MS Word or a similar program) with the title "InterfaceII" and save it with the following filename: GAMING_M11P3A-InterfaceII_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M11P3A-InterfaceII_HarismaD.docx Step 2: Create the same headers within this document as you did in the section from Module 10: UI: Menus UI: Gameplay Use these headers to help guide your work in Step 3. Step 3: Fill in your content containers with the text you want your players to see. This is what they will see while playing your game. Step 4: Confirm that your UI is similar to another game in the same genre by another developer. It should be from a game commercially available. Yes, you can search images online and use those as references. Write up a brief overview of your findings. Step 5: Submit your finished document in the <mark>Assignment Dropbox</mark>.

M11P3B: User Interface Feedback

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding			Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other:	
	Fieldwork				

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		Game		TechNote: create a wiki named "UI Components & Content" and format it into a table with the following headers: Student Name, UI: Menu Titles, UI: Gameplay Titles, UI content sample, Comments on Changes, Constructive Feedback
		Podcast (listen)		
		Other		
	Instructions	Step 1: Go to this activity's wiki entitled, "UI Components & Content" and contribute the details of your game's user interface components & content to the table provided. Here are the pieces of information you'll need to have ready to complete this step: UI: Menu Titles, UI: Gameplay Titles, and most importantly, a UI content sample.		

Instructions:

Step 1: Go to this activity's wiki entitled, "UI Components & Content" and contribute the details of your game's user interface components & content to the table provided. Here are the pieces of information you'll need to have ready to complete this step: UI: Menu Titles, UI: Gameplay Titles, and most importantly, a UI content sample.

Everyone in the class will be adding to this table, so you'll get a chance to see how everyone else's ideas are starting to come together, too.

If, at any point in your development process, you'd like to go back to this wiki to amend your entry, you are free to do so by simply changing the information in the applicable column next to your name. If you do end up making a change, please also write a few words about your reasoning for making the change in the column entitled, "Comments on Changes" and include the date of the change to make it easy for people (as well as for yourself) to see the timeline of the evolution of your game's UI (this timeline could also end up being a valuable portfolio artefact for you). If you end up making a change more than once, just keep adding to your "Comments on Changes" (without deleting your original comments).

Step 2: Browse the entries others have added to the wiki. Pick at least a couple that strike you (for whatever reason) and then comment on why your choices stood out to you by including some feedback in the column entitled, "Constructive Feedback". Your task here is to provide constructive feedback to your colleagues to help them refine their choices. So, for example, you could comment on the titles of their menus or their gameplay titles, or dive into their content sample. Think of this as a process of helping one another refine your ideas.

Note: the sooner you add your entry to the wiki, the higher the chance that you will get constructive feedback from your peers on your choices. Although this activity is something for you to complete in this module, you may find yourself coming back to the wiki throughout the course as you continue the refining process. For this reason, we've made a link to all your course wikis part of the navigation menu for this course so they are easy for you to access, regardless of which module you're in.

M11P3C: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

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	Game	
	Podcast (listen)	
	Other: Review and Revision	Y

Instructions	Step 1: Scan through the following components of your GDD to determine if there are any further changes you'd like to make to them: • Game Title and Genre • Story Breakdown • Gameplay Breakdown • Character Development • Setting Development Step 2: Go back to the Mechanics wiki and pick one more entry to comment on. If there are any entries that have no feedback yet, pick one of those to comment on this time. Provide some constructive feedback to that student and then review any additional feedback you've received on your mechanics ideas. Make the changes you feel are needed based on your evolving understanding of the section. Step 3: Scan through your Synopsis and Introductory Materials document and decide whether it needs any changes to be made to it, particularly in light of the details you've developed in this module. Step 4: Go back to the Levels wiki and give one other student some constructive criticism (particularly one who hasn't gotten much feedback from the group yet) on his/her ideas on synopsys and introductory materials. If you've gotten some more feedback from others since last week, decide whether you want to incorporate their ideas into your proposal. Step 5: If there are any more changes you'd like to make on how you've structured your game objectives, level detail or player path, set some time aside to do that now. Step 6: Spend at least another 15 minutes just reading through your UI documentation. Make sure the content your players will receive makes sense within the context of their gaming experience, and see if you want to make any last changes to your menus before moving on to Module 12.

Module 12: Video Games: Platform

Focus

In this module, we're going to start thinking, if you haven't already, about platform. That is, how do you think that players will engage with your game in the physical world? This will have a direct impact on some of the decisions that you've previously made.

Module Quotes

1. "In the history of consumer products the history of videogames is a relatively short one. But it has had a significant impact on how people play games especially X generation and millennial children."
    A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from http://www.onlineeducation.net/videogame_timeline

2. "The first popular video game system traces its roots to the Atari 2600 also creatively named "Video Game Computer System" in 1977 and was the most successful console of its time."
    A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from http://www.onlineeducation.net/videogame_timeline

3. "It wasn't until 1983 that truly next generation consoles emerged such as Nintendo's "Family Computer Console" or "Famicom" known as Nintendo Entertainment System in the US."
    A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from http://www.onlineeducation.net/videogame_timeline

Intro

In this module, you will select and confirm the intended platform for your game. We're essentially going to start thinking, if you haven't already, about platform. That is, how do you think that players will engage with your game in the physical world? This will have a direct impact on some of the decisions that you've previously made, which will make the review and revision process all the more vital during this module.

Module Rationale

This will be the first section of your GDD reserved specifically for the discussion of platform. It does not have to be a home-based video game console; you can think way outside the box if you want.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Taking a Stance on Platform	None	N/A	None	None	N/A	N/A
Part 2: Intended Platform	Taking a Stance on Platform	3%	Online Polls, Discussion Board	2 hours	Collaborative	None
Part 3: Platform Exploration	GDD: Video Games: Platform Selection	2%	Word Processing Software, Assignment Dropbox	2 hours	Individual	All previous modules
	Review and Revision	0%	Wiki, Mind Mapping Software, Word Processing Software	3 hours	Collaborative	Game Title and Genre and Story Breakdown and Gameplay Breakdown and Character Development and Setting Development and Mechanics Development I and Mechanics Development II and Synopsis and Introductory Materials and Objectives, Level Detail and Player Path and Interface (Structure) and Interface (Content)

[END OF PAGE]---

PART 1: *Taking a Stance on Platform*

We're almost near the finish line folks. You've only got three more modules ahead of you before you submit your GDD. Hopefully, you've been taking advantage of all the *Review and Revision* authentic engagements to consistently chip away at what will soon be your finished product.

[Insert Image http://i.imgur.com/goe0FNK.jpg]
Please add text: "Screen of almost every video game console between 1965 and 2014." Looking specifically at video game consoles (there is also a timeline for board games, card games, and PC games), it is clear that there have been quite a few stories written for this medium. Try and remember this when you're working on your game. There is a large chance that you can learn from a game that is similar to yours…which reminds me of something, now that we're on the topic of humility.

[Insert imbedded chart: <img src="http://www.vgchartz.com/embeds/worldwide_totals_lastgen.png" border="0">]
Please add text: Take a look at these statistics of console sales from the last generation of consoles. The main thing I want you to think about is how many games have come before yours—there will always be much to learn—this will never stop.

Next, there are usually a bunch of game designers who are obsessed with games from a graphics perspective. Please know that graphics can make a game, but they do not necessarily make a game good, or bad. Generally, it is the story, or the game mechanics that keeps players playing a particular title. Please ensure that you consider these points when selecting a platform/console for your game.

Okay…it's time to watch a video. Note that this video is just under 45 minutes long. It's considered a compulsory video (i.e., you're supposed to watch the *whole thing*), but if you're really tight on time, at least view from…. nope—watch the whole thing. You'll learn some eye opening things—pun intended.

[Insert link: https://youtu.be/QyjvWUrHsFc]

When you've finished that, come back here to take a look at some things to consider when choosing a platform for your game.

[END OF PAGE]--

PART 2: *Intended Platform*

Take a look, in depth, at the following articles.

The first is a brush with history. I promise, this will be useful. It's likely that there are some experiences that you've missed, depending on when you were born.

[Insert Image: http://images7.alphacoders.com/446/446023.jpg]
Please add text: Shigeru Miyamoto—Creator of Super Mario.

[Insert embedded link with image: A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from http://www.onlineeducation.net/videogame_timeline]

Okay, here is a series of things you should think about when choosing a platform for your game:

[Insert Image: http://upload.wikimedia.org/wikipedia/commons/a/af/OUYA-Console-set-h.jpg]
Please add text: "The fan Kickstarted, open-source, Android-based Ouya. Like the Sega Dreamcast, this console, as a concept, may have been ahead of its time. Chances are you haven't even heard of this console until now."

Now let's go through some of the information you'll want to include in the next part of your GDD.

Intended Platform

Here, you should detail which platform your game is intended for. Remember, you are free to consider other platforms, but, when developing, it is rare that development happens on multiple platforms at once…unless, of course, you have a budget that allows for that.

The core reason for this section of your GDD is for you to start thinking about how much it takes to pitch your game to certain companies, that is, if you aren't attempting to publish independently. If you're interested in learning more about the self-publishing process in the video game world, here are some optional readings to get you started:

[Insert Link: http://indiebits.com/self-publishing-steps/]
[Insert Link: http://www.gamesbrief.com/2011/02/12-business-tips-for-indie-game-developers/]
[Insert Link: http://mashable.com/2014/03/08/indie-developers-self-publishing/]

Make sure to detail the reasons for your selected platform, and remember that this section should NOT include statements like…

"Because it's new."
"Because it's cool."
"Because it has the best graphics."
"Because my friend, who works at X, says it's the best platform."

Do you see where I'm going with this? These might be reasons why you buy a game, but making a decision about a platform may have a direct impact on how your game is received (or even picked up, if you choose to pitch your game).

Write this section with the following concepts in mind:

"Does this platform have the best options for your intended demographic?"
"Does this platform have the right install base?"
"Why would YOU choose this platform (as a player)?"
"What are the specific features of this platform that have prompted you to select this platform?"

Remember, it may not be the best decision to pick a brand new console, or build a game for a high-end machine, depending on the type of game that you want to create. You should research a game like Crysis, and see what I mean.

[Insert Image:
http://cfs2.tistory.com/upload_control/download.blog?fhandle=YmxvZzEwMTQzQGZzMi50aXN0b3J5LmNvbTovYXR0YW NoLzAvNjluanBn]
Please add text: "Screen from the infamous Crysis, a game known to work best on high-end machines. If you make a game like this, you will most likely be speaking to a niche market of high-end machine users. Keep this in mind when you decide on a platform."

Expected Gamer Buy-in

This is pretty simple to understand, but not necessarily as simple to get. Think about the following:
"Demographic."
"Think about whom you want to be playing your game."

"Think about whom you DON'T want to be playing your game—this is important. All games aren't for everyone in design, though they are accessible by many."

Downloadable Content (DLC) Intentions

[Insert Image: http://www.cinemablend.com/images/sections/40160/Street_Fighter_X_Tekken_40160.jpg]

Think about whether or not you would like your game to have downloadable content…be careful here. Read this article below for an industrial example of controversy stemming from DLC.

[Insert link: Capcom Says On-Disc Street Fighter X Tekken DLC Is For Compatibility. (n.d.). Retrieved April 22, 2015, from http://www.cinemablend.com/games/Capcom-Says-Disc-Street-Fighter-X-Tekken-DLC-Compatibility-40160.html

Here are some issues to consider addressing in your document:
"Think about 'why' you'll need DLC (if you think you need it)"
"If possible, list a rollout plan for your different DLC packages."

Patch Management

As a society, we've been conditioned to accept unfinished software. A bold statement, I know. Attend one of my lectures one day to hear me defend this claim (more on that later). When it comes to fixing problems, should something ship to consumers with problems, you'll want to consider the following:
"How will you 'fix' your game (should the need arise)?"
"Will you release periodic patches?"
"Will you not release patches at all?"

Authentic Engagement #1: [Taking a Stance on Platform](#)

PART 3: Platform Exploration

Okay, you know what we're looking for now. If not, here are the headers below:

Intended Platform
Install Base
Relevant Features Specific to this Platform
Demographic
DLC Intentions
Patch Management

Think about what you want to do once this game is completed, and fill out this section of your GDD as concisely as possible.

Authentic Engagement #2: [GDD: Video Games: Platform Selection](#)

And now go back to the previous components of your GDD to determine whether there are any further changes you'd like to make given your final choice of platform.

Authentic Engagement #2: [Review and Revision](#)

[END OF PAGE]--

Summary

In this module, you've started to think about some of the business aspects of game creation. You'll want to keep these in mind closer to the end of your development, so that your design judgment doesn't become clouded by some of the concepts covered here.

[END OF PAGE]---

Module Bibliography

Required Readings

A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from

http://www.onlineeducation.net/videogame_timeline

Capcom Says On-Disc Street Fighter X Tekken DLC Is For Compatibility. (n.d.). Retrieved April 22, 2015, from

http://www.cinemablend.com/games/Capcom-Says-Disc-Street-Fighter-X-Tekken-DLC-Compatibility-40160.html

The Evolution of Gaming Consoles (1969 – 2013) | Chain Of Thoughts. (n.d.). Retrieved April 21, 2015, from

https://arunbabyveranakunnel.wordpress.com/2013/08/03/the-evolution-of-gaming-consoles-1969-2013/

Additional Resources

A Brief History of Video Games - YouTube. (n.d.). Retrieved April 22, 2015, from

https://www.youtube.com/watch?v=GoyGlyrYb9c

A Video Game Timeline (1967-Present). (n.d.). Retrieved April 21, 2015, from

http://www.onlineeducation.net/videogame_timeline

Capcom Says On-Disc Street Fighter X Tekken DLC Is For Compatibility. (n.d.). Retrieved April 22, 2015, from

http://www.cinemablend.com/games/Capcom-Says-Disc-Street-Fighter-X-Tekken-DLC-Compatibility-40160.html

The Evolution of Gaming Consoles (1969 – 2013) | Chain Of Thoughts. (n.d.). Retrieved April 21, 2015, from

https://arunbabyveranakunnel.wordpress.com/2013/08/03/the-evolution-of-gaming-consoles-1969-2013/

[END OF PAGE]--

M12P2: Taking a Stance on Platform

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	Students **engage** with the information by creating an artifact such as...	Discussion	Y
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	

		Brainstorming				Review (Play, Movie, Audio, Lit, etc.)	
		Research/Webquest	Y			Other	
		Fieldwork		**Notes:** *Technote*: create discussion thread entitled, "And the winner is…"			
		Game					
		Podcast (listen)					
		Other: Poll	Y				
	Instructions	Step 1: Search online for consoles/platforms that you believe your game should be played on and select two that you feel would be best suited to support your objectives. Step 2: Once you have picked your top two platform options, you are going to poll your classmates to get some feedback on which option could be the most creatively effective platform for your project idea. To do this, please create an online form that allows your colleagues to review each of your platform options and anonymously vote on which they like most. You can create your online form with whatever application you like. We recommend Wufoo [See screenshot in Appendix 1], GoogleForms [See screenshot in Appendix 2] or Survey Monkey [See screenshot in Appendix 3]. More information on how to use these services is available in the Orientation/Primer course you completed prior to the start of the program.					

	Step 3: Provide feedback to at least five of your colleagues by completing their polls. You are welcome to fill out the polls for everyone in the class if time permits, but please provide feedback to a <u>minimum</u> of five others. When completing each poll, you are asked to choose which of each person's two platforms works best within the context of his/her game idea and to provide some constructive criticism that the developer can use to inform his/her final platform selection. Step 4: Based on the feedback you receive from others, select which of your two platform options you want to run with. Write a discussion post in the discussion area for this activity entitled, "==And the winner is…==" letting the rest of the class know which choice you have made and why. (You can include the results of your poll, but this is optional.)

M11P3A: GDD: Video Games: Platform Selection

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	Students engage with the information by creating an artifact such as...	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness			Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	

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		Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
		Research/Webquest			Other: Assignment Dropbox	Y
		Fieldwork		**Notes:**		
		Game		*TechNote*: create link to Assignment Dropbox for Step 4		
		Podcast (listen)				
		Other				
	Instructions			Step 1: Create a written document (in MS Word or a similar program) with the title "Platform Selection" and save it with the following filename: GAMING_M12P3A-PlatformSelection_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_M12P3A-PlatformSelection_DanderN.docx Step 2: Create headers within the document with the following categories: Intended Platform Install Base Relevant Features Specific to this Platform		

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Demographic
DLC Intentions
Patch Management

Use these headers to help guide your writing in Step 3.

Step 3: Once you've selected the platform for your game, taking into account the results from your poll in the previous activity, fill in the content for each of those headers, using your own ideas as they relate to the game that you've chosen to build. Be sure to include at least one image of your selected platform in this section of your GDD.

Step 4: Submit your finished document in the <mark>Assignment Dropbox</mark>.

M12P3B: Review and Revision					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	N		Blogging	
Universal Themes	*Business of MPS*	Y		Journal	

Support students in mindfully creating projects that make positive contributions to the world	*Social Consciousness*	Y		Wiki	Y
	Personal Branding	Y		Mind Map	Y
Students <u>collect</u> information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	
	Fieldwork		*Notes:*		
	Game				
	Podcast (listen)				

		Other: Review and Revision	Y	

Instructions		<u>Step 1</u>: Scan through the following components of your GDD to determine if there are any further changes you'd like to make to them:
		
		   • Game Title and Genre
		   • Story Breakdown
		   • Gameplay Breakdown
		   • Character Development
		   • Setting Development
		   • Mechanics Development I and Mechanics Development II
		
		<u>Step 2</u>: Go back to your Synopsis and Introductory Materials document and decide whether it needs any changes to be made to it, particularly in light of the platform you've selected.
		
		<u>Step 3</u>: If you've gotten some more feedback from others since last week on your Levels documents, decide whether you want to incorporate their ideas into your proposal.
		
		<u>Step 4</u>: Spend some more time reviewing your UI GDD components (both on structure and content). You may want to revisit these sections and make some significant changes to these to capitalize on the affordances of your selected gaming platform.		

M3P? Screenshot: Wufoo

M3P? Screenshot: GoogleForms

Which platform works best?

Game Synopsis: [A brief paragraph describing your game (include information you feel is relevant to consider when selecting your platform).]

Platform Option #1: [Name and brief description]

Platform Option #2: [Name and brief description]

Of my top two platform choices, which do you think works best?

○ Platform Option #1

○ Platform Option #2

Why do you feel that the platform you've selected as your favourite works best in the context of my game?

[ ]

What was it about the other platform that didn't work within the context of my game?

[ ]

[Submit]

Never submit passwords through Google Forms.

M3P? Screenshot: Survey Monkey

Which platform works best?

Game Synopsis: [A brief paragraph describing your game (include information you feel is relevant to consider when selecting your platform).]

Platform Option #1: [Name and brief description]

Platform Option #2: [Name and brief description]

1. Of my top two platform choices, which do you think works best?

◯ Platform Option #1

◯ Platform Option #2

2. Why do you feel that the platform you've selected as your favourite works best in the context of my game?

[   ]

3. What was it about the other platform that didn't work within the context of my game?

[   ]

Done

Module 13: Video Games: Development Engines

Focus

Though it may seem a bit backward, after you've thought about which platform you'd like to develop your game FOR, we've yet to think about which platform you need to think about developing ON. No…you don't develop the game using the controller. Often, you don't even build the game on the system that you'll be playing it on. We'll look at this a bit more in this module. Oh, yes. This is the module I've left until the very end, otherwise it's likely you wouldn't have wanted to get started making games. Also, when people often think about video game design, in my experience, this is the type of content that frightens people—be brave.

Module Quotes

1.   "With the proliferation of games platforms over the last few years and the onset of the new generation of consoles with the PS4, Xbox One and Wii U, picking the right game engine can be tricky."
        The top 16 game engines for 2014 | Game Development Tools & Tech | Develop. (n.d.). Retrieved April 22, 2015, from http://www.develop-online.net/tools-and-tech/the-top-16-game-engines-for-2014/0192302

2.   "The tech includes the Blueprint visual scripting system, the Persona animation system and Matinee timeline-based machinima and cinematic system."
        The top 16 game engines for 2014 | Game Development Tools & Tech | Develop. (n.d.). Retrieved April 22, 2015, from http://www.develop-online.net/tools-and-tech/the-top-16-game-engines-for-2014/0192302

3.   "Features include the engine's recently announced physically-based shading, geometry cache and image-based lighting."
        The top 16 game engines for 2014 | Game Development Tools & Tech | Develop. (n.d.). Retrieved April 22, 2015, from http://www.develop-online.net/tools-and-tech/the-top-16-game-engines-for-2014/0192302

Intro

In this module, you will explore the different game design engines. Though it may seem a bit backward, after you've thought about which platform you'd like to develop your game FOR, we've yet to think about which platform you need to think about developing ON. No…you don't develop the game using the controller. Often, you don't even build the game on the system that you'll be playing it on. We'll look at this a bit more in this module. Oh yes. This is the module I've left until the very end, otherwise it's likely you wouldn't have wanted to get started making games. Also, when people often think about video game design, in my experience, this is the type of content that frightens them - be brave.

Module Rationale

This section will cover an aspect of game design that deserves its own course. Here, it will be treated as an overview.

Learning Outcomes

- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate a grasp of monetization processes through a written document
- Articulate multimedia design and production processes
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Choosing a Game Design Program	None	N/A	None	None	N/A	N/A
Part 2: Talk About Engines	Talk About Engines	3%	Online Video, Discussion Board	1 hour	Collaborative	None
Part 3: Completing Your Game Design Document	GDD: Completing Your Game Design	0%	Word Processing Software	2 hours	Individual	All previous modules

[END OF PAGE]---

PART 1: *Choosing a Game Design Program*

It's time for this course to take a turn for the technical.

It may be useful for you to think about the following statement here:

"What does your game want to DO from a play standpoint?"

Then, you may find it easier to find a program that can do THAT.

In this section, we're going to take a look at three categories of game design programs:

1. Basic Game Design Software
2. Genre-Specific Game Design Software
3. Just kidding, only 2…I don't want to overwhelm at this stage

Let's take a look at two examples for the category of basic game design software:

GameMaker™

There is much too much to get into here, but, to get you started, watch the following GameMaker tutorial:

376

Construct 2™

Again, this module is designed to show you that making games is possible but it takes time. It is rarely as easy a popular media would have you believe. Don't believe me? Okay then, check out this next introductory tutorial for Construct 2™:

Now that you've watched the videos…Yes. Game development is difficult.

Finally, here is a list of some general engines for game design, along with the second set, genre-specific engines.

[END OF PAGE]---

PART 2: *Talk About Engines*

Group discussion time.

Given what you know, it's time for you to talk about your decision. First, however, you'll need to decide on a game design engine that you feel would be best for your game, and then you'll need to watch at least ONE additional tutorial video before you make your decision, to confirm that your selection is right for you.

Authentic Engagement #1: Talk About Engines

[END OF PAGE]--

PART 3: Completing Your Game Design Document

It's the final stage of the course—you need to package your finalized game design document. You won't be including your platform development analysis in your GDD but make sure you take that extra step to prepare for what's ahead post-GDD, as well as to have another valuable addition to your professional portfolio that shows your ability to think technically in such a creative space.

It's at this point that you'll be able to reap the rewards of all those review and revision sessions. Remember a few things:

This should be something you'd pitch to a developer or game design company. The best example, albeit way more content than we're expecting in this document, can be found below:

[Insert Link: The Design Document Justin Kelly. (n.d.). Retrieved April 22, 2015, from http://www.scribd.com/doc/5402045/The-

Design-Document-Justin-Kelly]

After you look at this document, it may be a bit easier to understand why I haven't shown you a completed GDD until this very moment. This is a small example of what is being expected of you. Yes. Imagery included.

Authentic Engagement #2: GDD: Completing Your Game Design

[END OF PAGE]---

Summary

In this module, you may have become more familiar with the processes behind your passion. It will take time to craft all of the experiences that you've been working on this time, but, more importantly, you'll need to think about whether or not you want to make your game, or find someone who can help you make this game, based on the detail you've outlined in your game design document.

[END OF PAGE]---

Module Bibliography

Required Readings

Choosing the Right Game Engine | Unity, Source 2, Unreal Engine 4 or CryENGINE. (n.d.). Retrieved April 22, 2015, from

http://blog.digitaltutors.com/unity-udk-cryengine-game-engine-choose/

The Big List of Game Making Tools | PixelProspector - the indie goldmine. (n.d.). Retrieved April 22, 2015, from

http://www.pixelprospector.com/the-big-list-of-game-making-tools/

The Design Document Justin Kelly. (n.d.). Retrieved April 22, 2015, from http://www.scribd.com/doc/5402045/The-Design-

Document-Justin-Kelly

The top 16 game engines for 2014 | Game Development Tools & Tech | Develop. (n.d.). Retrieved April 22, 2015, from

http://www.develop-online.net/tools-and-tech/the-top-16-game-engines-for-2014/0192302

Additional Resources

Game Development w/ Construct 2 Tutorial - 1 - Introduction - YouTube. (n.d.). Retrieved April 22, 2015, from

https://www.youtube.com/watch?v=j9or9t4Ixsw

Game Maker Studio: Basic Tutorial - YouTube. (n.d.). Retrieved April 22, 2015, from

https://www.youtube.com/watch?v=hzMNunoPd0o

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M13P2: Talk About Engines					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	Y
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise	Y		Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)	Y		Analysis/Critique	Y
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other	

		Fieldwork		
		Game		
		Podcast (listen)		
		Other		

Instructions	Now that you've watched the two introductory tutorial videos on GameMaker and Construct 2, you have a feeling for the nature of the platforms. With this knowledge in the back of your mind, begin this next authentic engagement. Step 1: Watch an introductory video for one additional potential game development platform you're considering for your game. Searching YouTube will generate lots of options. Step 2: Write a discussion post which addresses the following questions and post it to the discussion area for this activity entitled, Development Platform Decision: a. Explain your design platform choice, the reasons behind your choice, and the expected learning curve based on the genre of game you've selected. Step 3: Once you've posted the reasoning behind your development platform choice, comment on at least two other posts in which you provide feedback on the following: a. Whether you agree or disagree with the selected design platform, and b. Explain why you agree or disagree, citing one program specific feature Step 4: Use the feedback you receive from colleagues to inform the eventual selection of your development platform.

M13P3: GDD: Completing Your Game Design					
Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students engage with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students collect information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise	Y		Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	Y
	Research/Webquest			Other	
	Fieldwork		*Notes:*		

		Game		
		Podcast (listen)		
		Other: Editing	Y	
Instructions		Step 1: It's time to wrap things up. Your major task during this module is to review ALL sections of your game design document for coherence, grammar and spelling. Step 2: Once you're sure that every section is thoroughly reviewed, begin to package the different parts into one file, entitling it the title of your game and saving it with the following filename: GAMING_GDD_YOURLASTNAMEFIRSTINITIAL.docx. An example of a correctly structured filename would be: GAMING_GDD_VinnerU.docx Step 3: Add a table of contents to your document, additional imagery, and any relevant missing links (double check that the links you're including link to the right sources). Step 4: Hold off on submitting your GDD, even if you think it's in its final stage. You'll be learning more in the next module that will likely inspire you to make some final tweaks.		

Module 14: Game Design Document: Submission

Focus

This is it. This is your last chance to finish up your game design document. Get ready.

Module Quotes

1.   "General game development cycles are well documented and can only benefit teams of any size."
SEGAN: GDD?! Game Design Document Examples. (n.d.). Retrieved April 22, 2015, from http://seriousgamesnet.eu/assets/view/238

2.   "At the core of the best game development practices lives an important living document: the design document, uniting engineers and artists under the same plan."
SEGAN: GDD?! Game Design Document Examples. (n.d.). Retrieved April 22, 2015, from http://seriousgamesnet.eu/assets/view/238

3.   "The game design document does not include the production plan (gantt charts, etc) but is instead intended to give a description of the game content as precise as possible."
SEGAN: GDD?! Game Design Document Examples. (n.d.). Retrieved April 22, 2015, from http://seriousgamesnet.eu/assets/view/238

Intro

In this module, you will submit your completed GDD. But, before you do...a little reading is ahead of you.

Module Rationale

This section will allow you to package and submit the completed GDD that you have crafted throughout this course, while making any last minute additions based on a review of industry-standard GDDs.

Learning Outcomes
- Critically engage in the iterative process of game design
- Demonstrate the link between good storytelling and good video games
- Connect gaming theory to commercially available video games
- Describe various components of game design
- Discern the difference between the iterative process of game design and the components detailed in a game design document
- Distinguish the various skills and roles involved in the creation of video games
- Articulate multimedia design and production processes
- Articulate a grasp of monetization processes through a written document
- Differentiate user experience design processes
- Categorize multiple platforms for user-based interactive experiences

Task Checklist

Topic	Authentic Engagement	Grading (% of overall grade)	Technologies You'll Be Using	Time Commitment	Individual, Collaborative, or Group Task	Pre-Module Prep
Part 1: Looking at Some More GDD Examples	None	N/A	None	None	N/A	N/A
Part 2: GDD: Submission	GDD: Submission	28%	Word Processing Software, Assignment Dropbox	1 hour	Individual	All previous modules

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PART 1: *Looking at Some More GDD Examples*

If you haven't done this yet, checking online to see examples of game design documents is…rather tricky. It's tricky because some of the ones available for viewing are quite overwhelming. Further, the ones that you're most likely dying to read are under lock and key—trade secrets.

[Insert Link: SEGAN: GDD?! Game Design Document Examples. (n.d.). Retrieved April 22, 2015, from http://seriousgamesnet.eu/assets/view/238]

You need to read ALL seven game design documents at the above link—this will help you see the good, the bad, and the complex, comparing them to the document that you'll be compiling in the last part of this module. Get to it…

[END OF PAGE]--

PART 2: *GDD: Submission*

Final Round. You need to package your finalized GDD. Remember a few things:

You want to make sure that this is presentable—that is, something that you'd want to show someone, with the intention of being funded. Yes, ask someone to put the 'fun' in funded.

Try and look at several examples, and choose one that suits the intended aesthetic that you have in mind:

[Insert Link: Game Design Document Template | Unity Community. (n.d.). Retrieved May 29, 2015, from

http://forum.unity3d.com/threads/game-design-document-template.240036/]

Please add text: Check out the top 2 links from this Unity Forum. They should link to two variations of the same GDD

template.

Oh…you're still here?

Have a read of the descriptions behind the thinking of GDDs from Gamasutra…

[Insert Link: Gamasutra - Creating A Great Design Document. (n.d.). Retrieved May 29, 2015, from

http://www.gamasutra.com/view/feature/131632/creating_a_great_design_document.php]

Okay…I think we've done all we can do…for now. Work hard and get that document looking spiffy.

Authentic Engagement #1: GDD: Submission

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Summary

In this module, you had the ability to see at least seven different game design document examples, and you've had the chance to polish and submit yours.

And now for a final note on where to go from here...

Video games are very similar to special sauce recipes—people know that they exist, but they're tricky to find online. In that regard, remember, your intellectual property is our core concern. Heading out into the industry, you'll have to consider who you let see this document, and whether or not you leave it with them. Your journey will be different if you decide to be an independent developer or if you want to pitch this document to a top-tier games publisher—the choice is yours. Just know that, your ideas are important, and you should respect them as such—just like we do.

One great place to get started if you're starting off with the independent route, is Indie Team Up, where people collaborate iteratively, much like on this course, on the different production parts of the video game design process. It's still in its infancy but the concept is great; this is one dynamic way to see the viability of your game, as you can talk to the kinds of people who would be helping you create it.

And if you get to a stage where you want to look for a publisher, one great place to start is by looking at this list on Wikipedia, where you can see where game publishers exist globally. Yes…there are quite a few.

I can't tell you how to proceed going forward, but, I can tell you that, you have the foundation to get the design process started. Yes. That's right, I said that.

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Module Bibliography

Required Readings

Game Design Document Template | Unity Community. (n.d.). Retrieved May 29, 2015, from

http://forum.unity3d.com/threads/game-design-document-template.240038/

Gamasutra - Creating A Great Design Document. (n.d.). Retrieved May 29, 2015, from

http://www.gamasutra.com/view/feature/131632/creating_a_great_design_document.php

Additional Resources

Game Design Document Template | Unity Community. (n.d.). Retrieved May 29, 2015, from

http://forum.unity3d.com/threads/game-design-document-template.240038/

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M14P2: GDD: Submission

Basic characteristic of the Authentic Engagement	Individual (I) | Group (G)	I	**Students <u>engage</u> with the information by creating an artifact such as...**	Discussion	
	Portfolio Artifact	Y		Blogging	
Universal Themes *Support students in mindfully creating projects that make positive contributions to the world*	*Business of MPS*	Y		Journal	
	Social Consciousness	Y		Wiki	
	Personal Branding	Y		Mind Map	
Students <u>collect</u> information by performing a task such as...	Reading Exercise			Presentation	
	Writing Exercise			Online Conference	
	Video (watch)			Analysis/Critique	
	In the news			Video (create)	
	Case Study			Podcast (create)	
	Brainstorming			Review (Play, Movie, Audio, Lit, etc.)	
	Research/Webquest			Other: Assignment Dropbox	Y

	Fieldwork	
	Game	
	Podcast (listen)	
	Other: Editing	Y

Notes:

==TechNote==: create link to Assignment Dropbox for Step 2.

Instructions	<u>Step 1</u>: Review your GDD one last time. <u>Step 2</u>: Submit your finished document in the ==Assignment Dropbox==.