

Accident in Slow Motion: Inhabiting Fast Capitalism

Regina Kneller Volovik

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ABSTRACT

Accident in Slow Motion: Inhabiting Fast Capitalism

Regina Kneller Volovik

The proposed research argues the material origins of the virtual accident and explores its effects on temporal experiences of media consumers. Specifically, it addresses accident expressed as experiential lag, resulting from the technical imperfections of the network used to play video games. Moreover, it investigates the ways in which lag is perceived and dealt with by the players at LAN parties as well as by the artistic community. To illustrate the argument some information was included from the observation and interviews conducted during LAN-ETS 2006 and 2007, within the frame of the research project “The Social Worlds of Video Games” funded by FQRSC.

The argument develops through analysis of the temporal experiences of users of different media; examples from fine arts, movies and video games are used. The materiality of the medium along with its immediate context is found to play an important role in the medium reception. Moreover, speed at which the medium is presented is argued to be a crucial factor in initiating and maintaining the process of immersion.

Finally, the research defines lag as a social accident, and investigates how LAN parties are simultaneously a symptom and a critique of the structure of “fast capitalism”.

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Introduction: The Big Picture

Fast Capitalism and Digital Culture

From the beginning of the Industrial Revolution more than 200 hundred years ago, developed nations have created even greater prosperity and higher living standards. Enacting the principle of efficiency and encouraging the progress of transportation and communication technologies, capitalist countries recently began to take advantage of the cheaper labor and resources of less developed countries. That is gradually leading to more economic interdependence and mutual cultural influences across the planet. This process of globalization refers to the standardization of the life experiences in different places around the globe. The flow of capital, the migration of labor, the development of tourism in the previously isolated places, and spread of world-wide trends and fashions: for clothes, pop-culture products, food and leisure activities, - all are evidences of globalization.

People are no more confined to their immediate geographical locations neither for sources of income nor for contexts of pleasure. We often work, shop, study, play and maintain relationships with people at physically distant locations. This tendency worried social scientists, who predicted increasing social isolation and psychological problems for people who spend most of their time in front of their computers rather than in “face-to-face” interactions with people. It turned out that such freedom and convenience, due to the usage of computers and Internet, came with a high price tag. We become even more dependent on the physical space: our habitat got limited to the places where we can plug in our computers and connect them to the network. However, the technology is getting constantly upgraded, and now ubiquitous computing allows bringing the miniaturized

computers with us everywhere we go. Still, the tendency to dedicate most of our time to the on-line rather than face-to-face relationships continues to persist. Technology does not just allow doing more things in less time: it embeds the principle of efficiency into all areas of life, including leisure time and the most intimate relationships. As a result, it dictates constant increase in life pace.

Since globalization is the process that transcends space, it might be legitimate to take a cross-cultural approach in research and generalize its findings as relevant to the global population. However, this thesis deals primarily with the people who live in the technologically developed capitalist countries of the “first world” in North America and Western Europe. The gaming culture discussed in this research represents the culture inhabiting “fast capitalism”. “Fast capitalism speeds up the rate at which people live out the historical possibilities presented to them. They do this by “reading” a public world in which deauthorized texts have been dispersed into the built and figural environment” (Agger, 1989, pp. 20-21). I would like to complete this definition by emphasizing the role of the acceleration of all processes. When ideas get immediate realization and move from the state of abstraction into the material culture of our daily life, ideology becomes invisible to critique. Moreover, tempo of life embedded into the life practices is hard to theorize about and more than ever – to resist. The study of LAN parties seeks to break the “spell” of speed and to take a close look at the driving forces behind and the consequences of the studied events.

LAN Parties

LAN parties are social gatherings of players, where they come to the same physical location to connect their computers in a local area network (LAN), in order to play video games. While they vary in number of participants, focus here is on the larger LAN parties, hosting between 300 and 600 players. Questions are raised regarding the connections between the materiality of technology and the sociality of interactions based on this technology. I use the problem of lag as an issue that allows analyzing the attitude of video games players towards speed, both as aspect of communication technology and the foremost characteristic of the modern life.

As for the reasons of appearance of the LAN parties, it is useful to take into consideration an investigation into the history of virtual community that emerged from the commune-like lifestyle (Turner 2006). In search for technologies that would enhance the life of the commune and make its building easier, the group in California created an electronic link (The WELL). This story may serve as an example opposite to the case on hand. The WELL is a case of people using technology to enhance the life of the group by providing, among other things, an opportunity for long-distance communication. On the other hand, LAN parties are the example of people who may or may not previously know each other from virtual interactions, and whose getting together compensates for the drawbacks of online communication.

Major reasons for using LAN parties as the case study in this thesis lie in the details of their emergence and development. Technical problems that result from playing on-line and isolation from others, which are characteristic of fast capitalism, led the gamers to organize events where the speed and quality of connection coupled with

players' co-presence added to the pleasure of gaming. Furthermore, fun the lanners have eventually got appropriated by the capitalist corporations; they are gaining profit from the events and increase the target clientele by advertising their hard- and software. As a result, personal agency of the organizers gets gradually devalued and consumed by the capitalist system.

Another reason for choosing LAN parties, as an ethnographic field site, is the fact that the interactions there take place at different levels: between people, between computers, between people via computers, and also between human and non-human agents (human-computer interaction). Needless to say, this highly computerized environment is very typical in fast capitalism.

Current Challenges in Social Sciences

In the face of the “acceleration of just about everything” (Gleick 1999), sociologists are made to consider the ways in which theory should respond to the speeding up of everyday life.

Should theory attempt to keep pace with a world that is changing faster than ever, and if so, what methods should it employ to do so? Conversely, is the very strength of theory that it is slow, detached and reflective form that lies outside the accelerated logic of contemporary capitalist culture? (Gane, 2006, p. 21)

Nicholas Gane (2004, 2006), in his recent book, and the paper that followed, reviews the future of the social theory and asks a series of “key questions”: from the

supposedly changing definition of the “social”, to the speed at which sociology needs to react to the ever accelerating realities of contemporary life. Gane reviews possible answers provided by different theorists. Among them are, crucially for this discussion, Baudrillard and Virilio. Baudrillard argued (2002) that in the conditions of analysis when events speed up, the theorist should move slowly. On the other hand, while according to Gane, Virilio also calls for “theoretical slow-down” (Gane, 2006, p. 30), in fact Virilio explicitly states:

Faced with this state of affairs, very largely catastrophic for the very future of humanity (...) we have to try *as fast as possible* to define the flagrant nature of disasters peculiar to new technologies. And we have to do this by using scientific expertise, of course, but also a philosophical and cultural approach.

(Virilio, 2007, p. 14)

Ben Agger examines post-Fordist stage of capitalism both in his books and web-based academic journal, invariably using for the titles the key words “Fast capitalism”.

Invasive technologies that tether us to capital and control can also help us resist these tendencies (...) Information technologies afford connection, mitigate isolation, and even make way for social movements. We are convinced that the best way to study an accelerated media culture and its various political economies and existential meanings is dialectically, with nuance, avoiding sheer condemnation and ebullient celebration. (Agger, 2005, editorial introduction)

Information and communication technology is one of the main players shaping the contemporary society. Literature on material culture and sociology of science and technology pays attention to the social implications of the technological progress, namely to the increase in long-distance interactions and tendency for social isolation, accompanied by a move towards a sedentary life style. As was mentioned above, the acceleration of all processes is a major characteristic of modern life, along with technical and scientific progress. Under contemporary capitalism, it is the computer that controls and sets the pace. We arrived to the level of hyperproductivity, in which a person is supposed to keep up with the race in technology (Virilio 1998, Taylor & Harris 2005, Baudrillard 2000). Accumulation of capital over time involves increased work efficiency: more work in less time, which reduces the turnover time of capital. The time spent on transportation and communication gets compressed by means of increased speed. The concept of hyperproductivity also involves the decline of the “waiting culture”, when new technologies of information and communication transcend space instantaneously. This entails a greater speed in the pace of life, along with intensification of more and shorter activities (Harvey 1989, Cooper et al. 2002).

The relationship between technology and culture has always been subject to debate, and the most extreme examples of the opinions are social constructivism and technological determinism (Taylor & Harris 2005, Schroeder 1996). My purpose here is not to take a side in the argument, but to acknowledge that cultural and technical phenomena are abstract and material at once.

The Accident Thesis of Virilio

Paul Virilio, French cultural theorist whose work to a great extent inspires and affects the proposed study, illuminates the connections between technology, speed and accident. Significantly, as he observes and comments over the years on the development of science and technology, in particular as it relates to the ways of modern life and strategies of contemporary politics, the concept of accident appears to gain strength of relevance. Ultimately, Virilio envisions the accidents becoming more and more global, impacting larger numbers of people and transcending geographical boundaries of localities.

In Virilio's work the concept of the accident takes on a philosophical dimension: "It is the intellectual scapegoat of the technological; accident is diagnostic of technology" (1998, p.20). Technology has an inherent capacity for self-destruction; any new invention comes with its by-product, a new kind of accident. Virilio advocates for the need to take a close look at the accidents, to "accept the unacceptable" – the fact, that the accident itself is becoming as automatic and serially reproduced as the great discoveries and technical inventions it accompanies (2003a, p.7). He quotes Paul Valery's observation that any repetition of the function tends to disappear from our consciousness. We become unaware of the instrument producing the action, until the failure in its function, the accident, grabs our attention: "consciousness now exists only for accidents" (ibid, p.6). This reference to automation is crucial as a characteristic of capitalism, where the series of repetitions do not leave much time neither for critical approach nor for creative intervention.

When a ship sets to sailing, there is always the possibility of something going wrong causing it to sink. A train that begins its journey can always get off the track. Importantly, especially when it comes to means of transportation, the scope and worth of the accident are directly correlated with the laws of physics. The faster a train or a plane goes, the greater will be its impact with the ground or other objects in case of the accident and the more drastic its consequences. On the other hand, the greater is the speed of movement, the less time a human operator of the vehicle has to intervene and prevent the catastrophe.

We are now reaching the point where the possibilities of an accident during the critical minutes of a plane landing, if guided automatically, are fewer than if a pilot is controlling it. We might wonder if we will ever reach the stage of automatically controlled nuclear weapons, in which the margin of error would be less than with human decision. But the possibility of this progress threatens to reduce to little or nothing the time for human decision to intervene in the system. (Stratton in Virilio, 1986, p.140)

So, not just speed makes the effects of the accident more horrible, but it also reshapes our take on the issue of human responsibility. The larger is the number of people relying on the same technology, the more global become the effects of the accidents occurring due to the technology's failure. While technological progress makes people's life more comfortable and safe on one hand, it simultaneously endangers it, and the danger grows with the pace of advancement.

The perception of accidents as unrelated exceptions is dangerous, in Virilio's view, especially in light of the rarely publicized fact that last century brought a mass of technological accidents. Such powerlessness and voluntary blindness in face of accidents that become automatic due to increased number of repetitions, takes on a suicidal character. Our responsibility to future generations, Virilio states, requires exposing the accidents and the frequency of their repetition (2003a, p.8). Moreover, there is a need to critically review the applications of technologies.

The Virtual Accident

Virilio offers two approaches to the problem. First, there is a need to prevent the progressing globalization of the accidents, when their consequences transcend geographical boundaries and affect large numbers of people, as is the case of the virtual accident. Moreover, Virilio calls for creative engagement with technology as a way to prevent using it blindly.

Thus, Virilio makes the connection between masses of people relying on and using the same technology, and the loss of individuality of experiences. The virtual accident is the one that takes place in real time, but is not embedded in any concrete physical space. It is the kind of accident that may happen during on-line interaction between people. In other words, it takes place in a virtual environment. Given the spread of communication technologies both due to necessity of interacting across distances (characteristic of globalization) and the efficiency of performing business transactions in real time (also characteristic of "fast capitalism") the virtual accident gains the strength of relevance. The virtual accident is the focus of the proposed research, and I address its

specific instance: experiential lag resulting from technical imperfections of the network used to play video games, and the way lag is perceived and dealt with by the players of LAN parties.

Lag

Long before the Internet and the popularization of video games Virilio wrote about interruptions, which he defines as a change of speed, and the social and political role of stopping (Virilio 1983). Significantly, Virilio and Baudrillard seem to be the only theorists who consider speed along with its opposites: slowing down and complete inertia. So far, the lag has been discussed exclusively in the technical literature and is addressed as a problem to be solved (Schroeder 1996). On the technical side there is speed of communication between the computers, distance to the server, the processing capacity of computer hardware, and more. However, it is also important to consider the social aspects of the lag: the ways in which it is experienced and made sense of by people.

Lag, or latency, is a consequence of less than perfect communication between computers. This means, for example, that instead of uninterrupted video stream there might be isolated frames. The more realistic is the virtual world created by the games designers, the more time it takes to transfer the bits of information that comprise it from one computer to another. In a way, this delay in communication is an unintended outcome, or an accident, in the process of delocalization. Video games, particularly of the first-person shooter type, are intended to be played online. However, the further the opponents playing the video game are from each other, the greater might be their

experiential lag. So, lag might be viewed as an accident of globalization and of the acceleration of all processes in the contemporary capitalist society. As I have previously mentioned, the specific example used here to look at the perception of and dealing with lag is the case of LAN parties.

Methods and Outline of Chapters

My research in a way answers the calls to review the role of the social theory at the fast times through the variety of methods employed to support my argument. My approach is not just dialectical, but multi-faceted. I attempt going to the heights of theoretical discourse in order to get the bigger picture, while at other times stick close to the ground of everyday life by doing ethnography. The succession of examples throughout the work can be seen both as following the chronological logics of media development: from fine arts to cinema to video games to artistic game modifications, and as presenting different levels of analysis: from general culture to distinct community to subjective personal experiences.

In the first chapter I introduce the ethnographic research at the LAN parties. Then, I present the concept of the accident and discuss material infrastructure of communication, the notion of the virtual reality and the concept of lag as it pertains to the experiences of video games players. The second chapter analyses the notion of the virtual accident and its consequences, drawing attention to the speed at which the media are presented. Furthermore, the argument develops through comparison of LAN parties and electronic markets, as formations representative (in a somewhat paradoxical way) of the process of globalization. Finally, third chapter defines lag as a social accident, in

opposition to a glitch, and investigates how LAN parties are simultaneously a symptom and a critique of the capitalist structure.

Chapter 1: The Material

Fast Capitalism

Eat faster, get the news faster, communicate faster, date faster, mate faster: 'life in the fast lane' is the aspiration of the countless millions...

(Porritt, 2005, p.44)

Contemporary industrialized capitalist societies can be characterized by the tendency to promote the idea that faster is better, in practically all areas of life; to create ideologically distracting alternative spaces; and to perpetuate these ideas through the specific nature of information technologies, enabling virtual realities. At this point, it is necessary to discuss and give more detailed explanation of the above-mentioned characteristics of capitalism. To begin with, capitalism implies automation of production and reproduction processes, “in which technology came to play a core role and in which control coincided with the goal of productivity and surplus value extraction: the machine as dual instrument of control and of increased productivity” (Robins & Webster, 1999, p. 112). Particularly, this machine control was achieved through the attempted annexation of time: “Fordism extends and deepens that process through which capital has sought to impose its rhythm and tempo upon time and time consciousness” (ibid, p. 113).

The role of technology in exerting and perpetuating control over people's temporal experiences is important not just in the case of an isolated immediate experience. It is also crucial because of the gradual and continuous changes to the time culture and consciousness it brings about. People are often pictured just as some cogs in the giant mechanism doomed to keep up with the pace of the tireless machines by the theorists concerned with the effects of industrialization.

The Fordist plant became an integrated and automated complex, a megamachine that paced and disciplined the workforce. Control was then truly structural. The time-clock and the assembly line prevailed. Relations of power, subsumed into the functioning of technology, became automatic and invisible. (ibid, p. 112)

The LAN party can also be seen as an example of a megamachine that paces its participants. It has the beginning and the end defined by the organizers, and usually spans over 48 hours. Moreover, for the teams participating in the competitions, the tournaments schedule allocates limited time for the “outside” playing, and sometimes just makes it impossible. Any technical problem that interrupts the play takes away the time that could be otherwise dedicated to gaming. One of the reasons for seeing LAN parties as symptoms of “fast capitalism” is the fact that the notion of the “party time” in its traditional sense, as being opposite to “work time”, takes on a new meaning when it comes to LAN events. Instead of lack of planning and structure that emerges “on the go”, we find organization that allows for the utilization of time to its maximal efficiency at large LAN parties. In order to use the 48 hours slot to its fullest players often cut their sleeping hours, and do that with the help of so-called energy drinks: “Bawls” or “Red Bull”. The consumption of alcohol is usually made possible right outside of the LAN space; however, participants do not take it knowing that it will have negative effect on their in-game reaction time. They want to play as much and as well as possible, keeping up the pace put forth by the machines.

Ethnography of LAN Parties

The data that informs this research was gathered during the 4 different LAN parties that took place in Montreal between March 2006 and March 2007. Treating each LAN party as a case study, I observed the events and had different types of conversations with the participants. While it is essential to be aware of the role of time and effects of lag in different games, I would argue that playing at the field site would make a researcher less flexible, consuming all his/her attention and therefore I did not play at any of the LANs. Nonetheless, participation is crucial for making sense of the event. In total, I had about 25 informal talks and formal interviews with players, staff, organizers and system administrators.

March 2006: my first field notes. I'm at the main lobby of the ETS - Ecole de Technologie Supérieure of University of Quebec in Montreal. The lights are dim. The lobby is filled with desks; there must be at least a couple of hundreds of desks in here. In the passages between the desks and on the chairs in front of them – people: mostly, young white male. Hardly anyone is talking. More than 600 people are present at the moment, but the place is pretty quiet. On the desks: computer monitors, keyboards, sometimes computers themselves, mouse pads, mice, empty bottles, paper plates with what looks like remains of pasta, pizza and hot-dogs. Under the desks: computers, boxes of drinks, bags, pillows and blankets. On the chairs in front of the computers are the gamers. Some of them are worn-out from the hours of play and just rest on the pillows, which they put directly on the keyboard. Most of them, however, are playing. They got headsets with microphones on their heads. Sometimes we can hear yelling, which sounds out of context and somewhat muttered. A group of spectators immediately gathers behind

the yellers, looking at their monitors and listening to sometimes sharp, sometimes incoherent yelling (incoherent for the outsiders, like myself), and occasional clapping. It is a 48-hours long LAN party.

LAN parties are short-term continuous events. Therefore, in order to make a meaningful observation it is vital to arrive at the event at the moment when the physical set up of the venue has begun. Not just that it provides an opportunity to talk to the technical staff, but also allows examining to what extent the gamers are free to choose and organize their individual space. For example, many players come to the LAN to “show off” their individually made computers, and choose to exhibit them on the desk in a way that makes the computer the most visible to the spectators. There is a whole new culture of “case modding” found at LANs, when gamers modify their computers cases to achieve maximum efficiency in gaming: they take off part of the case walls and insert different cooling systems, to avoid overheating and to insure continuous uninterrupted play. Another example of dealing with space at LANs is the fact that all of my interviewees preferred to talk next to their desks, which became their fixed personal spaces for the duration of LAN. It is interesting to consider this observation in the light of Swalwell’s reflection: “The group’s occupation of space is always only temporary, lasting for a day, albeit a long one, making these lanners – quite literally – nomads” (2003, p.3).

While spending the time around the players and observing them playing helps to identify people you want to talk to, it might be complicated to actually approach them: you can not simply tap a gamer on the shoulder while s/he is playing. Once the gamers are outside of the game, however, they are very approachable and easily get involved in any kind of conversation, from small talk to an in-depth interview. Interestingly, the

gamers express willingness to discuss their experiences and to express their opinions. Probably, that is due to the fact that they do not usually find themselves in the context where they would be encouraged to verbally articulate their thoughts on gaming experiences and gaming culture.

Many LAN parties still often emerge spontaneously among the close friends and host only few players gathering in someone's basement. However, there is the tendency to organize large LAN events, and organization requires money investment. As a result, the character of the event changes dramatically. What once was "we (community) are having an event, can you (companies) send some prizes for our guys?" has turned into "we (companies) are having an event and we want gamers (consumers) to go to it" (Polkowski, 2006, p.3). There are already some players and even whole teams that take a critical view on what's going on at the larger, sponsored LAN events. Because, what they see is a gradual conversion of what used to be a community party into commercial event.

During my recent fieldwork at the LAN party I've met a remarkable group of people. It was already the second day of the party, and they still have not played any video games. They told me that their main purpose of being there is to have fun with each other, and expressed concern with lanners who take competition, participation in tournaments and winning prizes too seriously. These young people believe that being so serious about the games is to miss the point of games, which have actually been created for fun. I asked them which was their favorite experience at a LAN party was. The following is the quote from the interview:

We do like playing “Unreal Tournament”, because there is a game mode that allows players to compete against a team of computer to achieve specific goals. What we like in this game mode is that we play together as a team vs. a team of non-humans. We prefer cooperative play to competitive play. When we play on “Unreal Tournament” server, we are having fun. The other players around us see us having fun and they are thinking “Oh, how about we joined their game”, and they are joining. Since each time a player joins our team a new AI is coming in, so if there are 16 players, there are 16 bots. And all the people are playing together against the AIs.

LAN parties are the by-products of the process of globalization. They are critique of the notorious “digital culture”, which is far from being underrepresented in numbers. This year, the organizers of the LAN party in Norway called DreamHack got a certificate from the Guinness Book of Records for establishing the new world record. In a way, the expression “the global village” got illustrated by this LAN party: more than 10,000 people were simultaneously present at the event; at least 7,500 of them were playing video games. So, LAN parties simultaneously present symptoms and consequences of fast capitalism. To give more context to the players’ temporal experiences of the LANs it is useful to review some theories of time.

Time in Social Sciences

If we do not understand time, we become its victims. "Time is a gentle deity", said Sophocles. Perhaps it was, for him. These days it cracks the whip.

(Gleick, 1999, p. 13)

People's perception of time varies in different social and economical contexts. As a social psychologist Robert Levine (1997) noticed, the perception of the speed with which time passes varies in different cultures. For Westerns, for example, the time that is not filled with any activity is wasted, while for some Asian cultures the absence of surface activity does not imply "nothingness". Moreover, since the amount of activity is one of the factors influencing people's time perception, Americans tend to judge the moments when they do nothing as boring and strive in their minds for the next instant of activity. On the other hand, Levine observed that in India and Nepal people drop by to visit their friends "only to sit and remain silent... These people were confused when I asked them whether they felt awkward about doing nothing together. Simply sitting, they explained, was doing something... When silence is valued, it ceased to be wasted time." (pp. 41-42). Furthermore, the break in action is viewed as a highly creative force. The Japanese, for example, hold a concept of interval between objects or actions. "Westerns might refer to the space between a table and a chair as empty. The Japanese refer to the space as "full of nothing". What doesn't happen for the Japanese is often more important than what does occur" (ibid). In the West,

Time is socially perceived as something that must be filled up to the very smallest folds, thus eliminating the positive aspects of lost time that could also fill up with

reflection, possible adventures, observing events, reducing the uniformity of our existence and so on. (Rheingold in Goodman & Jorgensen, 2005, p.137)

George Gurvitch was one of the first sociologists who attempted to grasp the complex time structures in a society. In 1964, he spoke of the multiple versions of social time: “Every all-inclusive society tries to establish a unifying hierarchy of social time” (p. 13). According to Gurvitch, each society, social class, individual group, or micro-social phenomenon (related to myth, religion, magic, economy, technology, law, politics, knowledge, morals or education) tends to occur in its own version of time. Presenting time scales of different societies, this is how Gurvitch describes capitalism: “The working class is both besieged and seduced by “technical civilization” and the “illusions of prosperity” and of well being” (Gurvitch, 1964, p. 143). Therefore, this type of society can be predominantly characterized by “Erratic Time, time of irregular pulsation between the appearance and disappearance of rhythms (...) In the micro-social sphere this is the time of mass sociability, especially of the passive mass sociability” (Ibid, p. 32).

George Simmel, addressing the renewed importance of time in modern urban life, asserted that metropolitan “precision has been brought about through the general diffusion of pocket watches” (Simmel, 1903:1950, p. 412). Simmel also discussed the issue of rhythm in the modern life. He pointed out that the rise of the modern big-city or “metropolitan” society was characterized by its speed, intensity, contrasts and multiplicity. Rapidly changing images; discontinuity of the impressions; brevity and fleetingness of social contact – everything in the urban life led to transformations in mental life. In order to accommodate the metropolitan rhythm of events, the great number

of people living and acting in proximity, along with the introduction of impersonal money economy, the metropolitan type of man had to emerge.

Punctuality, calculability, exactness are forced upon life by the complexity and extension of metropolitan existence and are not only most intimately connected with its money economy and intellectualist character. These traits must also color the contents of life and favor the exclusion of those irrational, instinctive, sovereign traits and impulses which aim at determining the mode of life from within, instead of receiving the general and precisely schematized form of life from without. (Ibid)

In other words, a metropolitan man becomes much more susceptible to the influence of external conditions, and his personal life gets caught in the overwhelming stream of urban life. Simmel's thorough analysis of the impact of economical conditions on human psych is directly relevant to and useful for the argument I make in this paper.

Anthony Giddens makes time and space the two major aspects of his theoretical perspective. He observes how time and space, or at least our concepts and understanding of these, as well as their material implications, have changed dramatically in recent years. The relation of people to time and space in the contemporary social world differs from that of earlier societies. However, "Everyone still continues to live a local life, and the constraints of the body ensure that all individuals, at every moment, are contextually situated in time and space" (1999, p.415).

The basic domain of study of the social sciences, according to the theory of structuration, is neither the experience of the individual actor, nor the existence of any form of social totality, but social practices ordered across space and time. Human social activities, like some self-reproducing items in nature, are recursive. That is to say, they are not brought into being by social actors but continually recreated by them via the very means whereby they express themselves *as* actors. (1984, p. 2)

This argument provides Giddens with a means of integrating human social action with the larger systems, structures, and institutions of which we are a part, and I would like to adopt this approach in this thesis. According to his theory of structuration, each moment of social reproduction encompasses three intersecting levels of time: the temporality of direct experience; the temporality of being; and the “long term” of institutional time, related to the development and reproduction of social institutions (1984, p. 89). So, in the case of LAN parties, we might say that they are embedded simultaneously in the social time of “fast capitalism”, the personal age-related histories of the players, and their subjective perception of time during the play.

Michael G. Flaherty, who acknowledges the contribution of G. Gurvitch, addresses the following question: “How is the perceived passage of time shaped by the individual’s transition from one to another situation or realm of social reality?” (1999, p.5). Flaherty argues that any human experience is temporal, while we only can understand temporality in terms of experiences. Moreover, he gives importance to the velocity, which can only be measured by observed changes of location in space (Ibid, p.

40). In his empirical research Flaherty analyzes the nature of experiences that make people perceive time as passing either faster or slower. Deriving the hypothesis of temporal compression, he refers to Csikszentmihalyi who used the term “flow” to describe the experience of someone who’s “skills are a good match for the demands of the immediate situation”, and who is neither bored nor overchallenged (Flaherty, 1999, pp. 131-2). Thus, one will perceive time as passing quickly, if everything goes “smoothly”; in other words, one is experiencing a sense of the “flow”. Adopting this argument to the discussion of new technologies, the theory of temporal compression may describe the link between the perception of time and experience of immersion. Hence the astonishment of people playing video games or just surfing the Net, when they compare the “watched” time to their personal experience of it.

As follows from the presented theoretical discourse, the capitalism is characterized by high levels of automation in all areas of life, and the use of technological means of communication. The acceleration of technology is exponential. In 1965, Gordon Moore, co-founder of Intel, predicted that computer processing power will double every 18 months. It proved to be true ever since (Gleick, 1999, p. 77; Goodman & Jorgensen, 2005, p. 133). So, the temporal structure of capitalism is not just fast, but has the tendency for constant acceleration. Of course, it has its social implications, which will be discussed further.

Accident

*To invent the train is to invent derailment; to
invent the ship is to invent the shipwreck.
(Virilio, 1998, p.20)*

Before we discuss lag as the example of an accident, it is necessary to identify the meaning Virilio puts into the concept of an accident and how his opinion differs from the understanding of the accident by other theorists. It is important to note, that the meaning of the word “accident” suffers in its translation from French. Virilio himself refers to the etymology of the word, which means “what has happened” (2005a, p.101), and not simply a “catastrophe”, as implied by the word’s everyday use in English.

In his *Physics*, Aristotle remarks at the outset that it is not Time as such that corrupts and destroys, but what crops up (*accidens*). So it is indeed *the passage of Time*, in other words the speed with which they crop up that achieves the ruin of all things, every ‘substance’ being, in the end, *a victim of the accident in the traffic circulation of time*. (Virilio, 2007, p.13)

While different technological accidents have always existed, presenting the reversed side of any invention, Virilio predicts changes in the scope and effect of the accidents that will become more and more *global*, *general* and *integral*. The *general* accident is “the historic accident of the transfer of the supremacy of the *localized* time of the facts and gestures belonging to each of us here and now, to the *globalized* time of generalized interaction between everyone in the same instant” (1998, p.184). Again, the technologies of information and communication play crucial role in compression and

increasing irrelevance of space, emergence of unified “world time”, and “delocalization” of accidents. The very process of globalization, which on one hand is possible due to the mentioned technologies and on the other encourages their distribution, is in danger of becoming a *global* catastrophe. Next, according to Virilio, we are facing the danger of an *integral* accident “on a planetary scale, an accident capable of incorporating a whole host of incidents and disasters in a chain reaction” (2004, p.257).

Traditionally the accident is seen “as a sudden transformation of matter in space” (DEAF, 1998, introduction), but Virilio adapts the Aristotelian philosophy to the current situation. Soon, Virilio argues, we will face the ‘global’ accidents that will take place in time, not in space, due to the changes in nature of spatiality and temporality brought on by the information and communication technologies. I propose to look at the accident expressed as an experiential lag, and suggest that lag can be seen as a material, a virtual, and a social accident at the same time.

More needs to be said about the mentioned problem of ‘lag’. According to one of the definitions, “A video game requires a constant exchange of messages between the game and its player. When the player refrains from communicating, the game ceases to exist” (Jansz, 2005, p.5). While this element of interactivity is important to various degrees for any form of media, it is crucial when it comes to the video games. Along with the interactivity, there is another element essential for the gaming experience: immersion, or a state in which several of the user's senses are isolated from the real world and fed information coming from a computer (Heim, 1998). Importantly, both interactivity and immersion depend on the quality of communication between the human and the computer, whereas some technical flaws or breakdowns can spoil the experience of play.

The perfection of the experience of virtuality became vital to many that play video games driven by the ‘mania’, the ‘dependence’ on the quality of the ‘parallel world’ (Virilio, 2003a, pp.131-2).

Networks

We can take real-time communication only so far – at least until humanity becomes a single organism with parts conjoined as a light-speed consciousness. The limit is in our own brains.

(Gleick, 1999, p.100)

To better understand the phenomenon of lag, it is necessary to consider the physical reasons for its appearance. I suggest starting the overview with the technical infrastructure of the networks (see Figure 1). Networks are systems that are used to communicate and share information and resources. They exist as systems only as long as the communication between the parts takes place (Sterbenz & Touch 2001). When there is no communication the system ceases to exist. Moreover, networks are collections of resources, which should be balanced in order to optimize their performance.

Networks are evaluated on the basis of their performance. High-performance networks support high-performance distributed applications: for example, remote access by users located elsewhere. Two fundamental characteristics necessary for network to be considered having a high-performance are: high bandwidth and low latency. The reason these metrics of performance are so important is simple: if the delay in transferring data between applications is zero, then the distance over which applications are distributed is irrelevant.

Basic Network Design

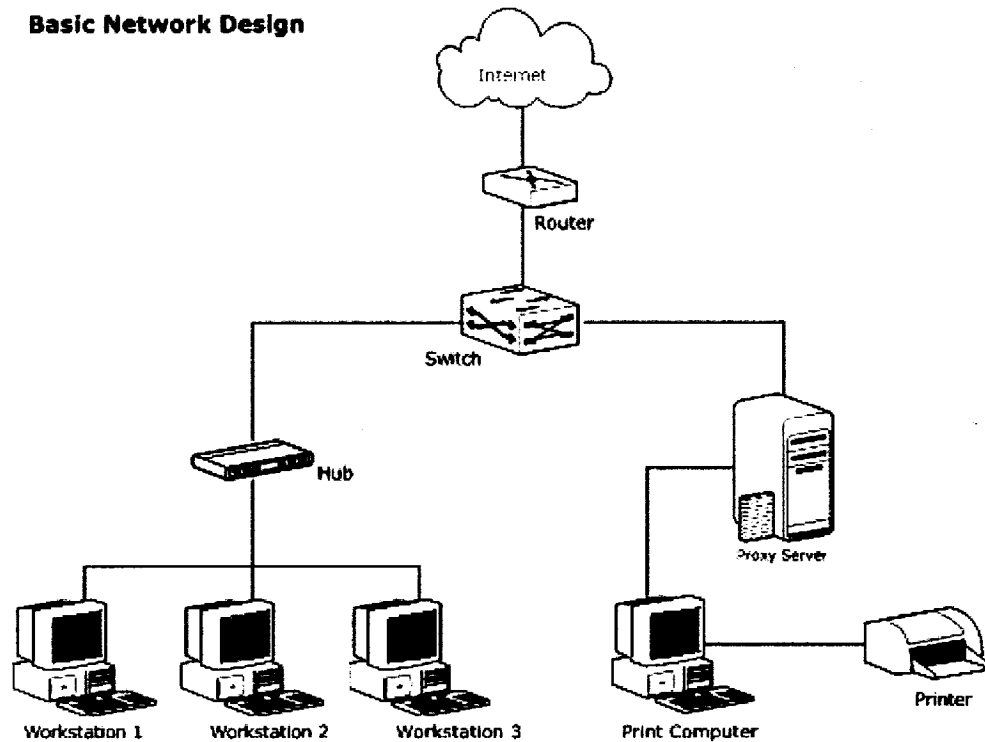


Figure 1: Basic network design.

Glossary for Figure 1:

Router – a junction between two or more networks to transfer data packets among them.

Switch – connects devices to form a LAN.

Hub – a multiport repeater, creates a shared Ethernet medium for connected computers, where only one computer can transmit at a time. Hubs detect collisions and other problems and disconnect problematic ports.

Server – a computer on a network dedicated to running specific software applications.

Hop – physical connection between two computers on a network.

The ideal network is the one that is completely transparent to communicating applications. Thus, the applications cannot tell the difference between executing on the same host from executing on different hosts connected by the ideal network. The ideal

network model has a zero delay and unlimited bandwidth. In other words, a very large file could be transferred across the network so fast that the receiver would get it just the next moment after the sender has sent it. I will discuss how long exactly this moment lasts a little bit later in this section.

While the problem of bandwidth can be solved by optimization, for example by creating the parallel paths, the issue of latency persists. The latency that can not be decreased by design and optimization is the one due to the speed of light signal propagation over distance. Due to the speed of light of 3×10^5 km/s, it takes a signal about 200ms to circle the Earth, while the desirable response time for interactive applications is 100ms. So, the round trip time for global Wide Area Network is 200 ms, which involves a certain delay in communication. On the other hand, Local Area Network is usually up to 1 km; therefore the round trip time is just 10 μ s, which gives the human user an impression of instantaneity (ibid).

The wider the network is geographically, the more significant the delay is. So, the network should provide straight paths between distant nodes to minimize the effect of delay due to the speed of light limitation. Furthermore, the capacity of communication channels is also limited by the laws of physics. The number of “hops” along the path (actual connections between each two computers) should be kept to the minimum. So, the purpose of this design is to strive to approach the ideal as much as possible. There are several ways to overcome the limiting constraints of the physical world by masking the effects of the speed of light. It can be achieved through exploiting spatial or temporal locality, i.e. by locating data physically close to the users and applications in order to save time on its retrieval (mirroring), and retaining it nearby if it is likely to be referenced

in the future (caching). Moreover, predicting future reference patterns (prefetching) allows exploiting bandwidth to reduce latency. For example, fetching a Web page from the server along with its hyperlinks it contains will use some bandwidth, but eliminates the need to access the server again when the links need to be accessed. Finally, periodic exchange of information is used in cases where the prediction is likely to match the actual state (prediction) and where the application can tolerate longer latencies in state exchange, while periodically catching up. For example, in the virtual reality the interpolation or extrapolation of sensor data can be used (ibid).

If none of the above-mentioned techniques is used, or if its effects are insufficient to overcome latency, then the user experiences the slow loading of a web page, or the file transfer takes time, or, in video games, the opponent does not seem to make a move. In other words, there is a delay in transfer of information along the network. What is considered a delay and what is not is up to the user. The users evaluate the performance of communicating applications according to their expectations of the total delay in completing the communication, including both end-to-end delay and any delay introduced by the application itself.

Users expect continuous media stream quality, defined by the frame rate for video and frequency range for audio. The main challenge with telepresence applications (i.e., video games) is to meet real-time synchronization requirements. Ideal interactive response time is from 100 ms to a maximum of 1 s.

Users prefer consistent response time to great variances, since they alter behavior at a relatively slow rate. Quick and partial information is better than slow and complete. That is why it is common to inform the user that the application is in process of receiving

information, rather than leaving the screen blank. Other examples would be the web page loading line by line or paragraph by paragraph, and a visible counter informing how many percents or minutes are left to complete the download.

While latency is the time taken from the moment the information was sent from one application until another received it, and it is always present to a different degree, lag is used to refer to the delay noticeable to a user. Video game gamers connect to the game server to play an online video game. Thanks to the special programs that measure the round trip time to the different servers, players have an option to choose a server with the lowest latency, expressed as a “ping” and measured in milliseconds. The lower the ping is, the less time it takes a signal to make the round trip to the game server and back. Here is a list of ping times and their likely effect on gameplay (adapted from <http://www.bluesnews.com/guide/lag.htm>):

0 – 50: Player is either playing on the server itself, on the same local area network (LAN) as the server, or has a very fast digital connection to the internet and is close to the server. A good player at this speed is almost godlike.

51 – 100: Player on the same network or has a digital connection with few "server hops." Lag is still negligible.

101 – 150: Player is using a digital connection, such as a dial-up (ISDN) or direct cable connection. Lag is just beginning to appear, but the game continues to be relatively smooth.

151- 250: A very good connection for a modem. The server is typically close in geography and low in number of "server hops." Lag is noticeable, but does not impair the game. This is the type of connection that modem players love.

251 – 350: Typical range for 33.6k and slower modems, and probably the worst connection speed you will see when playing on the same continent as the server. Lag is clearly noticeable and alters the game. Adjustments need to be made in timing for movement and firing.

351 – 450: Lag is so bad at this range that entire sections of data are lost as the server and player try to reconcile information. This "packet loss" can greatly affect a player's ability to perform.

> 451: You are merely a target for other players. Packet loss is typically so bad at this speed that you may find that the computer will not respond to your input for several seconds. Here is the typical scenario: another player enters the room and you press fire and try to move out of the way. Your character merely stands there as the other player kills it. You respawn and then your character suddenly starts to fire its weapon wildly and runs into a pool of lava.

Lag as a Symptom of the Technological Accident

When playing video games online, gamers encounter two major kinds of problems: technical problems due to technology's imperfections and technical problems caused by humans taking advantage of these imperfections. For instance, some hackers

use special programs that allow them seeing through the walls in the game. An advantage that it gives in the First Person Shooter (FPS) games is unbeatable. Denial of access to the system, on another hand, is a problem usually related to some easily resolved technical glitch, but could also be the effect of computer viruses, which are programs that insert themselves into the “host” software and spoil its function. Importantly, in order to “infect” a computer with viruses from a distance, the connection with the computer should be established. Most commonly, the viruses and other malicious software are spread over the Internet. So, the “malware” can be quickly distributed to millions of users over the net, illustrating the global accident Virilio talks about. Technology that allows real-time communication simultaneously serves as a basis for real-time, globally-spread accident.

As for the accident, it will affect the whole LAN party group simultaneously, since all the computers are interconnected. Remarkably, it is the LAN’s arrangement that makes computers more vulnerable: since the router allows viewing the intranet as one user, it gets affected in its totality as well. While an external attack (for instance, a virus) is quite unlikely, a major electrical power loss or a problem in the network would affect everyone present. When it comes to a lag, however, the problem is solved. In fact, the speed of connection within a LAN is so high that traffic jam which usually gets created around the server and along the connecting cables instead forms at the computers’ hardware (network cards etc.). Lag is a symptom of the technological accident: it is the inverse side of the high speed. Lag happens in the situation when technical infrastructure, supposed to provide instantaneous communication, fails to perform due to the limitations

of the physical world. Ultimately, as a technical problem, lag is solved by technical means.

Immersion

Some research emphasize that all our experiences are temporal and wonder whether there is a tendency to chose or transform an action or a situation in order to achieve the desirable temporal experience (Flaherty 1999, Ryan 1994, Heim 1998). Speed seems to be the connecting factor between time and space and, when it comes to the technology, encourages developing sensations and feelings associated with the online environment. This phenomenon related to the virtual reality is called ‘immersion’ (Douglas & Hargadon 2001, Ryan 1994, Heim 1998).

The concept of immersion has not yet been clearly defined in the academic literature. Many use it, but hardly anyone explains what is meant by the word. In literature, film, and video games studies they mostly refer to the visual immersion, which along with the interactivity is necessary to create a feeling of virtual, or telepresence of the human participant in the synthesized world.

Presenting the concept of immersion Schubert, Friedmann and Regenbrecht define it as follows: “The stimulus field depicting a three–dimensional space and its coupling with the user of a VE [virtual environment] lead to what we call *immersion*” (1999, p. 270). In this paper, the authors discuss the psychological concepts of presence, and the relationship between presence and immersion. However, they leave an impression that immersion is a self-explanatory term. Without clearly defining it, they use it extensively to define other concepts. They want to “investigate how well the various immersion factors can predict the presence components” (ibid, p. 274). To

answer this question, the researchers surveyed users of different virtual environments, mainly players of screen-based 3D games. The conclusion of the study is: “When possibilities to act in a spatial environment are perceived or when dramatic events structure the interaction, presence emerges. Both spatial and dramatic conceptualization can be framed as *meaning*. Spatial and dramatic meaning determine how present we feel in a virtual environment” (ibid, p.279). Thus, they focus on spatiality of the experiences, and ignore their temporality.

The degree to which the player feels integrated with the game space is a measure of her or his sense of “immersion”. “Immersion” is another much-contested term in videogaming discourse. For my purposes, I will define it here as diegetic immersion, where the player is immersed in the act of playing the video game, and as intra-diegetic or situated immersion, where the player is immersed in playing the game and in the experience of the game space as a spatial and narrated space. (Taylor, 2002, p. 10)

This is a definition of immersion by L. Taylor, who is analyzing in her paper how different perspectives influence game-play and game world spatial understanding. Again, while discussing immersion the author pays attention only to the space, and not to the time.

Douglas and Hargadon, whose ideas Taylor is building on, use schema theory and apply it to both conventional and new media. Studying the pleasures of reading they look “beyond immersion and engagement to ‘flow’, a state in which readers are both immersed and engaged” (2001, p. 153). In their definition of immersion “reader’s

perceptions, reactions, and interactions all take place within the text's frame" (Ibid, p. 156). Discussing the enhanced immersive abilities of the virtual reality, the authors give importance to "the absence of guides for the length of time occupied by our engagement or immersion" (Ibid, p. 162). Thus, they draw attention to the important feature of VR: ability to distort user's perception of time. They argue, that the new media can enable the users to experience the 'flow' (a concept coined by Csikszentmihalyi, and referred to by many other researchers): "a condition where self-consciousness disappears, perceptions of time become distorted, and concentration becomes so intense that the game or task at hand completely absorbs us" (2002, p. 163).

M.L. Ryan explores the role of immersion and interactivity as factors enabling telepresence. Ryan uses definition of immersion proposed by Biocca: "Insofar as immersion is "the blocking out of the physical world" (Biocca 25), it cannot be experienced if the user remains aware of the physical generator of the data, namely the computer" (1994, p. 8). Ryan refers to the virtual worlds, in which the user gets immersed: "The concept of immersion promoted by virtual reality bears thought-provoking affinities to recent theories of fiction based on the notions of possible worlds and of game make-believe" (Ibid, p. 10). She compares the experience of immersion in the narrative of the fiction to the immersion in VR, and refers to somewhat reactionary trend "against immersion" in contemporary cultural theory (Ibid, p. 20). Immersion in VR is viewed "by most theorists of postmodernism as a passive subjection to the authority of the world-designer", it is "a trademark of popular culture: "Losing oneself in a fictional world is the goal of the naive reader or one who reads as entertainment" " (Bolter in Ryan, p. 20). In other words, users might strive to get immersed in VR not for

its content, but for the sensations accompanying the experience. Ryan's idea might be related to Flaherty's anticipation that "individuals engage in the "time work" so as to promote or suppress a particular kind of *temporal* experience" (Flaherty, 1999, p. 153).

Talking about the design of the virtual reality, philosopher Michael Heim addresses immersion as the key feature of VR: "Virtual Reality in general immerses the user in the entities and events of the computer-generated world, and the immersion retrains the user's autonomic nervous system" (1995, p. 68). The psyche gets affected by the hallucinatory afterimages of the virtual world, and the user develops "Alternate World Syndrome (AWS) is an acute form of body amnesia which can become chronic Alternate World Disorder (AWD)" (Ibid, p. 67). All this sounds very serious and quite depressing, as if immersion was the method to use some sort of biological weapon. However, Heim reassures that there is "a bright side" to AWS as well, despite the "awesome imprinting power" of VR. What I find extremely relevant to my research and reinforcing my other findings is Heim's hypothesis, that eventually our culture will be changed by the use of VR: "VR may actually transform the way we learn and think and deal with things. Tools that transform us, like fire or the wheel or the automobile, become integral parts of our destiny, parts of ourselves. Such devices cause us to evolve and eventually mutate" (Ibid, p. 70). We could continue this argument about VR transforming the culture, incorporating Strate's (1996) observation of changes in "cybertraveller's" perception of time. Virilio proposes, that the "new man-machine" will shatter "*man's unity of perception*" and produce "the persistence of a disturbance in self-perception that will have lasting effects on man's rapport with the real" (1998, p. 159). Heim logically develops his idea, presenting two types of VR, tunnel and spiral, while discussing how

immersion differs in each case. In both cases, however, “The immersion comes about through psychological suspension of selfhood” (Ibid, p. 72). He makes a distinction between “perceptive” immersion corresponding to tunnel VR and “apperceptive” immersion, corresponding to spiral VR. Unlike in the former, in the latter case we do not just see the graphic images and identify with them, but feel ourselves perceiving them. Discussion of immersion in such terms is another important strength of Heim’s work. However, while like other authors he is repeatedly talking about VR in terms of space, and even poses many questions as to how exactly (if at all) should users experience immersion (1995, p. 71), he does not consider the role of time and its significance in achieving and maintaining immersion.

Andrew Darley explores the relationship between evolving digital technologies and existing media and considers the effects of these new image forms on the experience of the visual culture. He looks at the phenomenon called “simulation rides”, which is parallel to but is distinctive from video games. Describing the spectator’s experience of this “motionless voyage”, Darley defines immersion as a term that “refers to the more or less convincing impression of presence in the fictional world” (2000, p. 161). Further, he goes on to talk about interactivity and immersion as the mass entertainment. Again, as in some other works we find here discussion of immersion in terms of space: entering “into the image”. “To be ‘into the image’ in this sense describes a general attitude of being ‘taken up with’ or ‘wrapped up in’ the image” (2000, p. 165). He continues: “In this sense I am suggesting that such a preoccupation with the image entails a mode of reception that is fascinated not so much by what images signify as with their power to induce direct simulation, visceral thrill and formal and spectacular excitations” (ibid).

Thus, Darley suggests that game players and “riders” are fascinated by the very experiences of immersion and interactivity, and might come back to the game not for the meaning, but for the excitement of the senses. We find similar idea in the work of Ryan, and both authors support Flaherty’s question, posed at the conclusion of his study: “To what extent and in what ways do individuals purposefully construct lines of activity or social situations in order to create a particular form of temporal experience?” (Flaherty, 1999, p.153).

Virtual Reality

A Cyberspace is a light-show...The creation of a virtual image is a form of accident. It's the accident of the real.

(Virilio, 1994, p.2)

The origins of the virtual reality technologies can be traced back to the work of Ivan Sutherland in the 1960s. The idea was to simulate physical world which a human user would access and interact with through an “ultimate display” (Schroeder 1996). So, it was envisioned as a space, and still is referred to as such by contemporary theorists. The definitions vary from a “nonspace of the mind” (Morse 1998) to just “a space” (Shields 2003). I seek to enrich the discussion with taking into the consideration the time and the material infrastructure as important factors enabling virtual reality.

The virtual is often defined in contrast with “the real”. However, the real is not a self-explanatory concept either, especially in the conditions of the contemporary capitalism and the spread of communication technologies. If we follow the traditional norms of defining the physically real as something that can be confirmed by firsthand

observers, than, for instance, a computer file which undeniably is moving along the network between computers can not be said moving in the same physical way. “Operating with a simple notion of the tangible and the original as the one and only ‘actually real’ leads to a series of conundrums over anything produced from a model or in a series, such as in the case of mass production” (Shields, 2003, p. 20-21). So, building on the dualisms proposed by Bergson, Shields offers the following tetralogy model (see Figure 2) for better understanding what “the virtual” might be:

	<i>Real (existing)</i>	<i>Possible (not existing)</i>
<i>Ideal</i>	Virtual (ideally real)	Abstract (possible ideal)
<i>Actual</i>	Concrete present (actually real)	Probable (actual possibility)

Figure 2: Definition of the virtual. Source: Shields, 2003, p. 29

If virtual is an intention, an idea, or a vision, then the first step towards its actualization is through the abstract, which is the articulation and expression through concepts. Next comes the probable, which is an “actual possibility”, and can be expressed mathematically. Finally, the actualization of the idea in the concrete present makes it actually real. To complete the circle: we remember the real, but as an idealization, or virtuality. There is more to it, however. The online environments, for instance, are not simulations used as steps in the process of actualization of ideas in concrete present. Nor are they pure intentions or ideas that belong to individuals, because the virtual environment may be treated as a space shared by millions of people simultaneously and, as was mentioned before, the fact that its existence can be verified by others makes it real. Crucially, Shields notes that the virtual is dependent on the actual: “In the case of

virtual reality, this would be exemplified by its reliance on telecommunications infrastructure, technology and living bodies”. I will use Shields’ model in the following chapter to question the possibility of the purely virtual accident that Virilio talks about.

Significantly, other authors also consider technology as the crucial factor in experience and development of virtual reality (Morse 1998). For example, Schroeder states that network bandwidth is a key factor in the virtual reality development. He believes, however, that higher speed is simply a step in development of virtual reality technology, and has no social causes (Schroeder 1996). This thesis challenges this position.

When it comes to a lag, in the virtual reality it is most often described as causing motion sickness of a user or a player, especially when head-mounted display is used. Overall, there are two major reasons for lag: bandwidth of connection and quality of position-tracker. The latter has to do with the slowness of position-tracker, which is a device that “relays the user’s bodily movements to computer and thus allows the user to interact with the virtual environment” (ibid, p.31). In other words, this source of lag is irrelevant when it comes to playing video games without special gear (as is the case at the LAN parties). The bandwidth, however, remains an important factor.

Overall, authors writing on VR draw attention to the tendency to create virtual environments resembling concrete physical world, and, consequently, the quality of the virtual reality is judged in terms of its “realism”. The lag, in this sense, hinders the experience of the video game by interfering with player’s state of immersion since it causes simulated physical laws to look unrealistic. Players of video games represent part of the culture that strives “to disappear into virtuality” (Baudrillard 2000): to make all

experiences and sensations associated with virtuality as realistic as possible, so that people could forget about and ignore the mediating role of technology.

Virilio expresses concern with the subjugating potential of video games. Importantly, he appreciates that there is more to it than just player's interest in the game's narrative. Yes, like other forms of media, the virtual worlds offered by the games have the ability to distract from "real" life and compensate for its hardships. Crucially, however, it is not just about the content of games, but the form in which they are delivered. Virilio corrects famous McLuhan's formula: "It's not the *medium* which is the message, but merely the *velocity* of the medium" (2005b, p.141). In light of this idea the example of LAN parties provides an interesting ground for discussion, since these events are encouraged by the "need for speed". In a way, the desire to avoid lag in order to achieve better playing experience can be viewed as the desire to fully "subjugate" oneself. As rightly noticed by Virilio, players "inhabit the accident" (2003a, p.132), unable to see themselves outside of it.

Virilio warns about the advanced technologies that offer distractive compensating alternative of virtual worlds, in this way channeling political activism into the field of amusement (i.e. video games). He is very concerned with what he considers to be a new "addiction":

And how, other than as a major clinical symptom, can we interpret the fact that more than ten million people in France today indulge in the mania for video games, frequenting the networked games sites as one might an opium den,

connecting to the Internet in the way one might get one's fix of a drug?

(2003a, p.131)

The discussion of video games is important for Virilio as far as it illustrates his argument about people participating in the accident by giving up, in a way, on their lives; as a symptom of the dangerous tendency towards self-destruction:

The vogue for “on-line games”, a panic phenomenon of dependence, has lent a new dimension to what psychiatry terms *de-realization*, carrying adults and adolescents off to an insubstantial *parallel world*, where everyone gradually adjusts to *inhabiting the accident* of an audiovisual continuum independent of the real space of one's life. (ibid, p.132)

Distractive Role of Virtual Reality: Capitalism and Simulation

The appearance of new forms of communication, whether it is print, film, radio, or TV, always concerned social scientists with media effects on the audience. Sixty years ago, long before the invention of the personal computer and the Internet, Lazarsfeld and Merton attempted to explain this concern while analyzing the social trends that might cause it. Identifying some “social functions of the mass media” (1948, p. 497), such as status conferral and the enforcement of social norms, the authors draw attention to the peculiar yet largely unnoticed social consequence: “the narcotizing dysfunction” of the mass media (ibid, p. 501). While the two overmentioned effects of the media on mass audience can be and are used as tools of power and control (i.e. control over ideas,

opinions, and behaviors), Lazarsfeld and Merton call the third social outcome of media “dysfunctional” on the assumption it is an unintentional accidental consequence: “Quite apart from intent, increasing dosages of mass communications may be inadvertently transforming the energies of men from active participation into passive knowledge” (ibid, p. 502).

The key to the understanding of this “unplanned mechanism” (ibid) lies in its narcotizing potential. On one hand, the reader, listener or viewer dedicates increasing portion of time to the media, and gets exposed to the flood of information, which creates an illusion of being involved, engaged and active: “He comes to mistake *knowing* about problems of the day for *doing* something about them” (ibid). On the other hand, mass communications as social narcotics “may be so fully effective as to keep the addict from recognizing his own malady” (ibid).

In “The medium is the message” (1964) McLuhan uses words like “threat” and “enemy” (p.18), and the following passage reveals that the enemy he is talking about is our own blindness and unawareness:

Our conventional response to all media, namely that it is how they are used that counts, is the numb stance of the technological idiot. For the “content” of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind. (1964, p.18)

McLuhan repeatedly points out through his text that we have become blind, numb, desensitized towards the influences of media. Moreover, he criticizes the view of

technology as perfectly neutral and its effects depending on its application by users. He calls statements about the value of technology being determined by its use “the voice of the current somnambulism” (ibid, p.11). So, McLuhan calls to awaken from this trance we were put into by the “subliminal charge” of the media. However: “Failure in this respect has for centuries been typical and total for mankind. Subliminal and docile acceptance of media impact has made them prisons without walls for their human users” (ibid, p.20).

McLuhan reflects on the changes in the modes of perception brought about by new technologies.

For the man in a literate and homogenized society ceases to be sensitive to the diverse and discontinuous life of forms. He acquires the illusion of the third dimension and the “private point of view” as part of his Narcissus fixation, and is quite shut off from Blake’s awareness or that of the Psalmist, that we become what we behold. (ibid, p. 19)

For Baudrillard, the scale of analysis is different: he addresses the changes in the sensory sphere. “The pleasure is no longer one of manifestation, scenic and aesthetic, but rather one of pure fascination, aleatory and psychotropic” (1983, p. 132). I would like to draw attention to the word *fascination* Baudrillard uses repeatedly describing new forms of perception. It is not my purpose here to go to the depth of the word’s etymology. However, I propose to consider that *fascination* implies fixed attention; concentration on

a medium and full absorption by it; and sometimes might indicate inability to “break free”, to interrupt the addictive immersion.

Another interesting example of language that reveals the author’s view on the matter is McLuhan’s use of the word *numb* throughout his text. Due to the new technologies of automation and the acceleration of processes, including the process of communication, the medium, although evident and explicit, becomes ignored by the user. For psychological reasons, repetitive use of information leads to the state of saturation, until eventually the medium (which is the message) completely escapes our perception: we develop *numbness* towards it. Virilio also observes that the use of computers affects our *sensas*, which are the basis for sensations. “What machines do is *present*, since they reconstruct everything, every sensation” (2005, p. 67). Machines do not represent anything, they present through a calculation. “Now the machine is blinding us and we don’t even notice it” (Lotringer, *ibid*).

I would like to emphasize the importance of these observations to the argument in hand. What Lazarsfeld and Merton describe is the advent of the contemporary so-called “virtual society”: people use communication technologies with the increased frequency and lead their lives “on-line”, similarly to the way they spent their time in front of radio and TV sets before. Translated to the modern language of computers, networks and virtual reality, Lazarsfeld – Merton’s work can be viewed as dealing with the issues of immersion and simulation. Because, what is this “secondary contact with the world of political reality” through mass media (1960) if not preoccupation with simulation at the expense of reality? Significantly, not much has changed since the days of the authors, as the immersive “narcotizing dysfunction” of media is still rarely (if at all) problematized.

Moreover, neither Lazarsfeld and Merton nor contemporary researchers question the very mechanism which turns the media into “social narcotic”. I would like to offer a discussion of the relationship between the technical characteristics of communication technology and its immersive abilities. The somewhat overlooked and understudied, while crucial, factor is the experience of time by the media consumer.

Chapter Summary

In this chapter I introduced the ethnographic research at the LAN parties. Then, I presented the concept of accident and discussed the material infrastructure of communication, the notion of virtual reality and the concept of lag as it pertains to the experiences of video games players. Rather than talking about technology-based communication in highly abstract and metaphorical terms, as it is common in the contemporary theory, I accompanied the discussion of social consequences of lag by analysis of its material, physical predecessors. Finally, I made the connection between the capitalism and the distractive role of virtuality.

Chapter 2: The Virtual

Contemplation of Fine Arts

A painting or a sculpture is there for the viewer to enjoy it at his or her own pace. One can stand in front of a work at the art gallery for many minutes, while another passes it by with just a glance. “The ideology of ‘contemplative immersion’ in, or ‘absorption’ by, the artwork continues to regulate its reception” (Osborne, 2004, p. 66). However, contemplation implies investment of time in looking and seeing, feeling and interpreting, getting impression and recalling, thinking and associating. Paradoxically, such absorption is possible only if the observer is free to get distracted (the need for distraction comes from “the anxiety involved in giving oneself up to a particular work” (ibid, p. 68)), and to come back to the artwork, and if the artwork always remains stable and inert. Now, I would like to draw attention to the importance of the fact that there is no absolute continuity: any duration always is a fluctuation of different rhythms. “Duration is a dialectical process of continuity, interruption, and beginning again – always beginning again. The fundamental concept of time is thus not continuity (as Bergson thought), but temporalisation as rhythm. And the fundamental concept of a general rhythmicity is ‘the restoration of form’” (Osborne, 2004, p. 72).

What happens during the lower peaks of immersion? Where does the attention shift to when it wanders away from an art object? Osborne answers this questions by emphasizing the role of the context:

Each work makes its own time, in relation to its space, and hence to other times; but it can only succeed in doing so by taking into account in advance the spatio-

temporal conditions – the dialectic of attention and distraction – characteristic of its prevailing reception. The work of art is in a deep sense ‘contextual’. It necessarily incorporates some projected sense of its conditions of reception into the logic of its production. (ibid)

The art presented in a gallery-space both stimulates and fulfills the need for distraction. The sounds and movements and sight of other viewers and attendants, the architecture of the gallery, the information cards and other works, - all function as potential distractions and contextualize the space and time of viewing.

Thus, while the viewer is free to immerse herself in or withdraw from the artwork, the artwork is always invariably available for appreciation. While fine arts provide required permanence which allows different degrees of viewer’s involvement with the artwork, newer “technological” arts dictate their own ways of being perceived and appreciated, through changes in the very nature of relationship with time. The relationship with artwork turns to be dependent on the synchronization of the two rhythms: the rhythm of the viewer’s reception and the rhythm of the temporal unfolding of the artwork. The resulting acceleration of the presentation breaks the contemplation, which is a deeply personal experience, and instead makes the viewer experience and react at the pace that is imposed by the speed. Such is the means of, particularly, the cinematic apparatus to exert control over spectators’ attention and reception, as I will demonstrate in this chapter. Cinema “progressively ‘blanked out’ all distractions but the screen” (Osborne, 2004, p. 72). Video games use same apparatus coupled with the possibility for interactivity.

First Person Shooter Games

In order to appreciate why lag is considered to be an unpleasant occurrence interfering with the play, it is necessary to understand the characteristics of game temporality and the perception of time by the player. At the focus here are the games of the First Person Shooter combat genre (FPS), particularly *Counter-Strike*, which are most often played at LANs. These games are “characterized by the player’s on-screen view of the game simulating that of the character or First Person view” where the play is centered on the act of aiming and shooting weapons. These games are designed to be played over the Internet, therefore technical specifications of the hardware and the speed of Internet connection are major factors in affecting and mediating the gaming experience, and responsible for life and death of the character in the game. To demonstrate the popularity of this game, it is enough to quote some sources stating that at any time “there are between 3,000 and 8,000 Internet servers running *Counter-Strike*, world-wide, with approximately 23-25,000 players online at the same time” (Wright, Boria and Breidenbach, 2002, p. 2).

As a result of less than perfect communication, players experience some latency (what they call ‘lag’, or ‘chugging’) in the game. “In practical terms, this means that the experience of the data that comprises a virtual world suffers from an experiential lag compared to what you’d expect” (Buzzcut, 2004). Instead of uninterrupted video stream there might be isolated frames; the in-game position of a player does not get updated in a timely fashion; when you throw a grenade in FPS, instead of quickly falling and exploding it for some time is floating in the air. Game designers work around many of these issues in a variety of ways. Sometimes an online system can just guess through so

called “forward prediction”. If you shoot a missile, the program can send the rocket’s destination info and let the computer on the other end calculate the hit. But they all come up against the same basic problem—it takes a while for information to travel across the network, from one place to the next, from the game server out to players’ machines. At the end, we seem to be “still stuck with today's answer [to lag] - LAN parties. As the ability to process and share larger volumes of data improves, perhaps we’ll see the advent of stadium-sized LAN parties in which shared realities that involve thousands of participants overcome the lag barrier the old fashioned way - creating a more realistic shared virtual world by sharing proximity in the real world” (The Lag Snag) (See Figure 3).



Figure 3: LAN-ETS. Source: www.twitchguru.com.

Thus, while according to Virilio slowness would be a means of resistance to accident, LAN parties perpetuate speed, making it “perfect” by excluding any

interruptions, or lag. Moreover, even though LAN party might seem to be a purely local event with limited physical boundaries, it still exposes players to both global and local kinds of accident. Finally, while LAN parties support Virilio's view of video games players as a culture tending towards increasingly sedentary life style, they challenge the idea of their social isolation and disconnectedness (1997).

Time in Video Games

Subjective experience of time is “a product of both the play time/event time relation and of the tasks and choices presented to the player” (Juul, 2004, p. 11). This relation is expressed as speed, or pace, of the game. “The more interactive a video game is, the more control the player may have in the game's duration. [The player] can control when the game “cuts” from one view to another, in addition to the duration of time spent in each location” (Wolf, 2001, p. 86). Games with first-person perspective show continuous, fluid points of view. “Instead of a series of cuts, the effect is the creation of one long take until the level ends or the character is killed” (ibid). So, the player chooses and controls the pace of the game, and the play time and event time are closely correlated. However, “most games require a player to react rather than reflect” (Wolf, 2001, p. 88). This is especially true about the so-called “shooting” games.

Most often the time in video games is understood in comparison to and contrast with the temporal structures of earlier media forms: i.e. narrative and cinema. The main difference is the process of “mapping”, which is the projection of play time (the time used by player) onto event time (the time of the events in the game) (Juul, 2004, p. 12). A video game itself exists only insofar as the player plays it: “If you cannot influence the

game state in any way (...) you are not playing a game” (ibid, p. 3). It is this element of interactivity that allows creating parallel worlds, happening in real time. The impossibility of continuing the play, as is the case when there is a time lag, is frustrating for the player. This irritation is seen by some as a positive factor that motivates the player to work against the reasons of frustration (ibid, p. 12). Indeed, I argue the frustration with lag to be the organizing force behind the appearance of LAN parties.

The reasons for player’s annoyance with disturbances during the game play can be explained in terms of immersion. In games, like in films, “time pressure is often necessary for the creation of narrative suspense – particularly when you, as the player, are running against the clock and the outcome is yet to be determined”, since it depends on your actions (Wolf, 2001, p. 88).

When playing a game that projects a world, the player is (or the player’s actions are) mapped into the game world in a very direct way – this is the play element of computer games. A more open question is whether this means that we long for the virtual reality dream of being completely immersed in games. Many of games (...) work against the idea of immersion, since their discontinuous times and worlds point strongly to themselves as being games rather than believable fictional environments. (Juul, 2004, p. 13)

I disagree with this observation, since it perpetuates a view of immersion as a purely spatial experience (which is especially strange to find in the conclusion of the “examination of game temporality”). As I will demonstrate, immersion is a rhythmic

experience and therefore the player is able to adapt to the “discontinuities” of the game. Furthermore, I would like to argue that the assumption that players long to immerse themselves in the fictional worlds is faulty. Rather, their enjoyment of the game is in part caused by their subjective experience of time during the play.

Juul’s mistake stems from the fact that he does not consider the context, either temporal or spatial, as an important factor affecting the play. Moreover, he seems to view the in-game immersion as a continuous process. Juul looks at “how the players experience time in games” (ibid, p.11), ignoring the complexity of the subjective experience of time during the gameplay. He proposes a thorough analysis of the relationship between the play time and event time, but in this analysis the play time does not incorporate out-of-game experiences.

I will use the case of playing at the LAN party to emphasize the effects of the context, ignored by Juul. The example of the gallery space provided by Osborne is a useful comparison. Juul’s failure to recognize that the subjective experience of play time depends on the context of play, treats games in the way Osborne treats cinema: it correlates to “an ideology of visual perception that functions by repressing the spatial conditions of viewing” (Osborne, 2004, p.72). Similarly to wondering in the art gallery, playing at the LAN party can break the in-game immersion because it supplies a variety of temporal contexts: the awareness of the time-span of the LAN party itself; the time flows of socializing with others; and the temporalities of other computer-based activities (i.e. chatting, browsing, downloading).

The distractions that a LAN party provides to the players are numerous. The sight of other gamers, the lights of the nearby computer monitors, the sounds made by the

spectators indeed can interrupt the in-game immersion and divert from the game. As one of my interviewees noted, however, while these external factors might be considered as spoiling the experience, in fact, they deepen it. In these conditions players tend to focus on the game more, trying to leave out the distracting sounds and images. As a result, they experience immersion even more intensely. Constantly navigating between the object of deliberate focus (the virtuality of the game) and the surrounding distractions (the materiality of everything else), players construct and maintain their temporal experiences. As Virilio rightly noted,

We are entering a world where there won't be one but two realities, just like we have two eyes or hear bass and treble tones, just like we now have stereoscopy and stereophony: there will be two realities: the actual, and the virtual. (1994, p.2)

So, not just immersion is a rhythmical process, but it depends on the spatio-temporal context. Furthermore, the fluctuations of the rhythm are always between the diegetic (experience of the in-game world) and non-diegetic (awareness of being in the process of play) states. I turn to the discussion of these states.

Gamic Actions

There is a growing body of literature that discusses different aspects of playing video games. The investigations focus on a range of topics, which could be roughly categorized as games design, their psychological and cognitive effects on players, cultural and aesthetic implications, and, of course, social outcomes of playing video

games (Raessens and Goldstein 2005). Articulating the definition of what the game is, many theorists agree that as a cultural object video game stands apart because of its very nature. Unlike other media, a video game is a process, and exists insofar as is played (Galloway 2006, Juul 2004, Jansz 2005). Moreover, Galloway proposes “to call the video game, like the computer, an *action-based* medium” (2006, p. 3). This is not the only instance at which the author calls attention to the material basis of playing video games. In fact, he insists, that while the artificial division of human and machine operators is possible for the sake of analysis, it should be avoided.

In video games the action of the machine is just as important as the action of the operator (...) Video games are games, yes, but more importantly they are software systems; this must always remain in the forefront of one’s analysis. (ibid, p. 5-6)

I would like to adopt this position and to propose a way to enrich the analysis initiated by Galloway through complementing it by discussion of lag and its affects on the gameplay.

Seeing game as a process, Galloway comes up with the four-fold model of “gamic action”. In addition to the basic division between the human operator and the machine, he adopts the terms “diegetic” and “nondiegetic” from literary and film theory. Diegetic refers to in-game experience, while nondiegetic – to gamic elements “outside the portion of the apparatus that constitutes a pretend world of character and story” (ibid, p. 8). The nondiegetic acts, however, do not necessarily take the player outside of the game process. As was mentioned previously (see discussion of immersion in chapter 1), the intra-

diegetic immersion implies a simultaneous experience of the game and of the process of playing (Taylor 2002). In other words, the player may be fully aware of the material infrastructure that runs and displays the game, and still play it. Galloway's observations support my argument that immersion in the game space is not the only factor that attracts the player. The game (as an interaction between game software and human operator) goes on as long as the player's temporal experience is not undermined by the nondiegetic factors. I discuss precisely such instances of break in immersion, which fit in the following Galloway's model (see Figure 4) as nondiegetic machine acts:

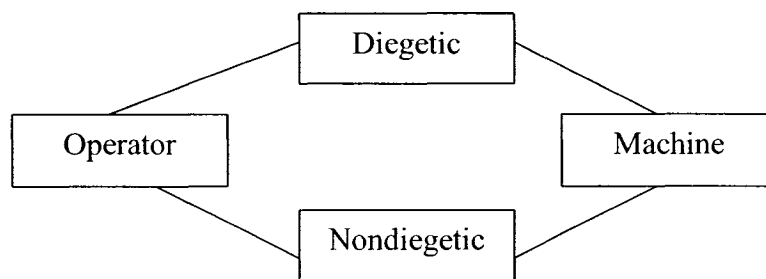


Figure 4: Gamic actions. Source: 2006, p. 37

The nondiegetic machine acts are performed by the machine and contribute to the experience of the game although do not belong to the narrow world of gameplay.

“Included here are internal forces like power-ups, goals, high-score stats (...) but also external forces exerted (knowingly or unknowingly) by the machine such as software crashes, low polygon counts, temporary freezes, server downtime, and network lag” (ibid, p. 28). However, while Galloway discusses in detail the nondiegetic machine acts caused by the over mentioned “internal forces” he does not offer any explanations or even

descriptions of how the external forces might affect and shape the game. I supplement the author's analysis by discussion of the effects of a network lag.

Galloway acknowledges that his model should be adjusted in a case of the multiplayer game, "for the very concept of diegetic space becomes quite complicated with the addition of multiple players" (ibid, p. 36). Suggesting theoretical analogue for the nondiegetic machine acts, he compares them to "*écriture*, the supplement, the new" (ibid, p. 38). In other words, these machine acts are able to transform the game in unanticipated ways, which add something original to the gameplay. In the case of the "external factors", i.e. power-ups or network lag, this addition might be a result of the technological accident. An example of the result of nondiegetic machine act could be the effect of the "dead man shooting". This is a situation quite common in FPS games when played online.

Consider the following situation: player A shoots player B. The application of player A will create a bullet entity, and transmit its state (with heading and velocity) to remote applications (adapted from Mauve 2000). Upon receiving the state of the bullet, remote applications will start to check whether any entity that they control (in this case B) is hit by the bullet. However, the network delay may be much larger than the amount of time that the bullet needs to hit its target. During this time player B might take actions, e.g., shoot at another player C, even though he should not be able to do so (because he's dead). Furthermore, at the time player B receives the state of the bullet he might have moved so that the bullet would not hit him. As a result, this technical accident (network delay) leads to the unpredictable and often uncontrollable virtual situations, which nonetheless are made sense of by players and become part of the game.

As was mentioned earlier, some theorists tend to believe that the state of immersion is a complex process, consisting of diegetic and non-diegetic periods (Heim 1998, Taylor 2002, Douglas & Hargadon 2001, Galloway 2006). Others, however, view immersion as a purely diegetic process, and either consider material conditions of the game as distracting and incompatible with the immersion (Ryan 1994), or do not consider them at all (Juul 2004). While the former acknowledge the importance of the context, the latter ignore it. In both cases, however, immersion is understood in spatial terms. I seek to enrich the existing theoretical discourse by discussing the temporal aspects of immersion and its rhythmical nature. My argument is based on a review of different media: fine arts, cinema, and video games.

Cubism: Changing Perception of Space and Time

On different occasions Virilio, as well as other authors concerned with the relationship between art, time and technology, refer in their writings to the work of the influential twentieth century artist Marcel Duchamp. I also would like to use Duchamp's art as an example of technological influences on painting and of the changes in artists' perception of space and time. Moreover, I will demonstrate that the medium and the technique chosen by the artist in turn affect the spectator's perception of and experience of time. This calls for a brief introduction into the history of the twentieth century arts.

The technological advancements of photography in the late nineteenth century that allowed capturing and analyzing the movements too fast for the human eye to see, called upon a revolution in fine arts. The "magic lantern" was said to "make the round of the civilized world", and it did, and as one consequence it "catalyzed" painters (Gleick,

1999, p. 59). Now technology offered the artists a possibility to take a peak at a movement or an action as stopped, sliced and dissected by the camera. “Then artists, in turn, took on speed as a new mission. They tried to understand and reproduce fast motion as humans *seemed* to see it” (ibid, p. 60). The arrival of the movie corresponds to the advent of the two of the major art movements of the 20th century: Cubism and Futurism. Both of these innovative tendencies explored and advocated for the principally new presentation of reality. Futurists expressed their artistic philosophy in their Manifesto (1909), where they summed up the major principles of the Futurist movement, including a passionate loathing of ideas from the past, especially political and artistic traditions. They also proclaimed a love of speed, technology and violence (see Figure 5).



Figure 5: Malevich: *Glittering Grinder*. Source: web.ncf.ca

While all the areas of art were inspired by new vision of and attitude towards space and time, for the purpose of the argument in hand I will focus on painting.

In cubist artworks, objects are broken up and re-assembled in different, sometimes random ways. The artists experiment with the presentation of the fourth dimension by depicting the subjects from the multitude of viewpoints simultaneously. Such conversion of ordinary objects into very abstract representations, coupled with multiple overlapping of different surfaces, creates characteristic to Cubism lack of depth. This shallowness of space, however, is somewhat compensated by the introduction of time into the painting.

Cubism, by giving the inside and outside, the top, bottom, back and front and the rest, in two dimensions, drops the illusion of perspective in favor of instant sensory awareness of the whole. Cubism, by seizing on instant total awareness, suddenly announced that *the medium is the message*. (McLuhan, 1964, p.13)

Both Cubism and Futurism tried to convey more with less, to break down the image to its smallest parts, and to compress visual information in time as well as they did it in space. “They did not, however, capture the reality of speed – at least, not in any perfect or reliable way”, because “taking a picture obliterates motion while revealing it” (Gleick, 1999, p. 61). Artists’ attempts to get across to the viewers not just the fixed moment but the dynamic sensation, as Futurists hoped in their Manifesto, have failed. They succeeded, however, “to drive home the message” by involvement of the spectator (McLuhan, 1964, p. 13). The work of French artist Marcel Duchamp seems to be a perfect example of that.

Virilio calls Duchamp “a philosopher who painted” (2005, p. 68). As many other theorists, Virilio identifies Duchamp’s major works as beautiful and extraordinary. For the sake of my argument I will focus on the earlier of them, the work that contributed to associating Duchamp with both Cubists and Futurists: *Nude Descending a Staircase, No. 2* (1912) (see Figure 6).

This painting was Duchamp’s first controversial work, in a long line of later shocking and scandalous creations. It depicts, according to the title, a nude, whose every step down the stairs is presented simultaneously, from different points of view. Moreover, the images overlap, as it is typical to Cubism. It “tried to show the fragmented, multiple-image sensation that technology had exposed” (Gleick, 1999, p. 61). As a result, the observer gets an impression of a movement that left a trace in the air.



Figure 6: Duchamp: *Nude Descending a Staircase, No. 2*.

Source: http://www.acsu.buffalo.edu/~jconte/Images/Duchamp_Nude.jpg

No wonder Virilio agrees that Duchamp “preempted digital technology conceptually” (2005, p.66). This simultaneous presentation of different points in space might be perceived as an illusion of moving around the object depicted on the picture, while the object itself is inert: a technique used today in the digital cinema and video games, the freeze-and-pivot camera technique and its “bullet time” effect. Use of freeze-and-pivot camera work affects the audience’s attention: we get immersed in watching the prolonged single shot, since there is a lot to see in it, while our look is guided by the constant movement. The resulting “bullet time” effect allows the viewers to see both the psychological time as experienced by the character (when we see the slow motion), and the actual way it would look from aside (when the movements get so fast that we can not follow them).

Duchamp did not just preempt the digital technology, but also is “the father of conceptual art”. The idea of conceptual art was “explicitly informational, explicitly McLuhanite in inspiration” (Lash, 2002, p.124).

Conceptual art works through the operability of the viewer/user... He or she no longer interprets, but does. Thus conceptual art is so comfortable as installation, as three-dimensional spaces, that we not so much view or interpret, but use and inhabit. (ibid, p.217)

Thus, the conceptual art was the origin of digital technology, whose virtual environments we populate today.

Fascination with Accident in Everyday Life

Take the history of film, of television, of video (including video games), and the biggest spectacle is the accident.

(Virilio, 1998, p. 7)

Mankind's "self alienation has reached such a degree that it can experience its own destruction as an aesthetic pleasure of the first order. This is the situation of politics which Fascism is rendering aesthetic. Communism responds by politicizing art". (Benjamin in Poster, 2006, p.116)

Observing the contemporary tendency of the media to overexpose and sensationalize the accident, Virilio concludes that "There certainly exists a desire to enjoy accidents" (Virilio, 1998, p. 7). Television, for instance, is the museum of accidents. "The cinema was certainly an art, but television can't be (...) Its art is to be the site where all accidents happen. But that's its only art" (1994). According to Virilio, cultural fascination with accident, death, and risk behavior is a substitution of the unlearned practice of sacrifice. "Whereas ancient societies made their sacrifices in a conscious and voluntary manner, within a ritual of worship, we, on the other hand, have unlearned to practice sacrifice as a ritual – so we are overtaken by it" (ibid). We engage, physically, mentally and emotionally, in dangerous, often suicidal practices. Sometimes the pleasure is not in the "adrenaline rush" in face of the physical danger, but in the breaking of cultural taboos and erasure of boundaries. We "play with fire" to remind ourselves that we are alive and can get burned.

If the accident has become so desirable nowadays, it's because modern societies have erased death, they have removed it from daily life. But since death is an inherent part of life, we want to reinstate it. We are experiencing a desire to expose ourselves to risk in order to regain this suppressed part of our humanity. (Virilio, 1998, pp.7-8)

Above all, fascination with accidents implies desire to loose control. However, while it is caused by the subject's sensation of being oppressed by the external powers, it leads to the ultimate loss of control by the subject. "The accident is experienced as an invasion of or intrusion into the domain [of safety, control, and self-reference], and for humans is closely related to the loss of self-control over the body" (DEAF, 1998, introduction).

Cinema

The spectacular use of space and acceleration of time in movies, both as part of plot and as perceived by viewers, are, as I will demonstrate, in opposition with the major trend in visual art, which is the contemplative experience of the artworks. Preoccupation with the temporal manipulations and the accident in the movies can be traced back all the way to the Cubists' visual disintegration of matter and experiments with space/time relations. I propose to consider two major opposing philosophies of cinema concerning use of temporal techniques: montage versus long take.

Long take.

A mind that is fast is sick. A mind that is slow is sound.

A mind that is still is divine.

(Meher Baba in Levine, 1997, p. 33)

By some theorists Andrei Tarkovsky has been called the greatest modern master of the long-take cinema. We can only wonder what Bazin would say about his work, since, as Henderson (1976) put it, Tarkovsky “is the classic case of the Bazinian ideal: the long-take director who uses editing for no other purpose than to link his shots” (p. 317). Bazin analyzed and favored long take for a variety of reasons, and first of all for “its temporal realism: the long take’s time is the event’s time” (ibid, p. 315). Then, of course, there is a relationship between the takes of different lengths through the entirety of a movie, but in this chapter I am concerned with the ideas behind and effects (on the film’s viewers) produced by the long takes. Significantly, both Bazin and Tarkovsky not just shared the preference for long take, but also were very critical of the technique of montage, and viewed the two as logical opposites. “One of the Bazin’s chief objections to montage is that it breaks down or analyzes the event for the viewer” (ibid, p. 321).

Tarkovsky was concerned not just with the way time gets captured by a film, but also how it envelops itself for the viewers. This is what he thought about the relation between time and its place in film:

How does time make itself felt in a shot? It becomes tangible when you sense something significant, truthful, going on beyond the events on the screen; when you realize, quite consciously, that what you see in the frame is not limited to its

visual depiction, but is a pointer to something stretching out beyond the frame and to infinity; a pointer to life. (1986, p. 119)

Tarkovsky saw cinema as the means “to take an impression of time” (ibid, p. 62). He considered the fact that movies got used for illustrative purposes (i.e. filming of literature and theatrical plots) to be an unfortunate wrong turn of events. Instead, he viewed the precious potential of cinema lying in “the possibility of printing on celluloid the actuality of time” (ibid, p. 63), which could be reproduced on screen over and over and again.

Tarkovsky insisted that the audience must have space for individual experiences of time while watching a film; people have to have some space for fantasies, reflections, personal memories retrieved as a result of associations called by a film. He expressed frustration with directors who turn unique events to banal, trivial, and overly explained; they limit the audience, ‘knock them on their heads’ by creating images that are too clear and familiar.

The trouble is that lots of audiences enjoy such knocks, they make them feel safe: not only is it ‘exciting’ but the idea is clear and there’s no need to strain the brain or the eye, there’s no need to see anything specific in what is happening. And on that sort of diet the audience starts to degenerate. (1986, p. 73)

For Tarkovsky, by contrast, the episodes become meaningful only when experienced by individuals. His films offer numerous opportunities for the viewers to

reflect, to remember, and to imagine, through his signature techniques, such as deliberately slow camera movement and a lot of long takes. Because time for Tarkovsky is “a state: the flame in which there lives the salamander of the human soul” (ibid, p. 57).

Intensified continuity.

The philosophy of the filmmakers who favor long takes over the techniques of montage has been articulated in the following way: “The idea of ‘montage cinema’ – that editing brings together two concepts and thus engenders a new, third one – again seems to me to be incompatible with the nature of cinema” (Tarkovsky, 1986, p. 115). Moreover, Tarkovsky further elaborated on the relationship between editing, length of shot and structure and rhythm of a film. He believed that there is “time running through the shots” whose pressure defines the rhythm of a film. “The course of time, recorded in the frame, is what the director has to catch in the pieces laid out on the editing table” (1986, p. 117). While uninterrupted long takes follow the natural rhythm of filmed events and therefore provide the viewers with time for ongoing reflection, fast cuts alter the flow of events according to the filmmaker’s plan. Montage is about expressing ideas through the form of their presentation. It is a perfect example of the McLuhan’s medium which itself is the message. Manipulation of the tempo of cutting evokes in viewers different emotions, which are controlled and guided throughout the film.

The knowledge of psychology of perception allows inducing in viewers a range of sensations, which are managed by alternating shots of different lengths that require different degrees of involvement. “As the scene develops the shots get closer to the performers, carrying us to the heart of the drama” (Bordwell, 2002, p. 16). In the similar

way, rapid, sometimes incoherent shots coupled with typical to contemporary American cinema spectacular special effects serve as attention catchers. “Today, most films are cut more rapidly than at any other time in U.S. studio filmmaking” (ibid, p. 17). From the average shot length of 6 seconds in the 1930s through 1960s, editing rates are sporting today 1.5 seconds per shot (compare this to the 8-11 minutes long takes of Tarkovsky). Moreover, most scenes present conversations, and “editors tend to cut at every line and insert more reaction shots” (ibid). As a result, we get what Bordwell calls “intensified continuity”, which mounts the traditional continuity “to a higher pitch of emphasis” (Bordwell, 2002, p. 16). This tendency in the contemporary cinema perfectly reflects the overarching capitalist ideology of doing more in less time.

Identifying possible reasons for this stylistic change, Bordwell considers that rapid cutting coupled with development of other media had affected the viewing skills of the audience. Generations trained on television, computer games, and the Internet perceive “intensified continuity” as natural. As Bordwell concludes, “as styles change, so do viewing skills” (ibid, p. 25). Getting used to and expecting rapid cuts in the movies due to the changes in attention span are only few examples of the overall acceleration of all processes.

Virilio gives a lot of importance to the development of the cinema as a factor in the acceleration of all processes, move towards the sedentary life style, and the overall obsession with everything visual. He observes a current movement towards terminal sedentarization, which is a consequence of

a transparent horizon spawned by telecommunications, that opens up the incredible possibility of a ‘civilization of forgetting’, a *live* (live-coverage) society that has no future and no past, since it has no extension and no duration, a society intensely present here and there at once – in other words, *telepresent to the whole world*. (1997, p.25)

Reviewing the history of the cinema in his “Aesthetics of Disappearance” (1991), Virilio identifies stages of its development which for him are invariably linked to the ever-increasing speed and to the changes in our visual perception. Virilio quotes Abel Gance who in 1927 writes about the movies which, in less than a quarter of the century “will become... entrancing, capable of bringing the spectators, in each fraction of a second, this unknown feeling of ubiquity in a fourth dimension, suppressing space and time...” (Gance in Virilio, 1991, p.55). Furthermore, Virilio mentions the American producers of the 1930s who discovered that this very ubiquity, the “deferred time” of cinematic images allows the audience to get distracted from the material plight of the economic crisis.

As follows from Virilio’s argument, the speed that previously was needed to eliminate distances became transformed into the speed of the motor of the cinematic apparatus. Now we travel without actually moving in physical space, and the cinemas’ armchairs become our seats for the length of the trip.

Realism of the script, vulgarization of the actors, precision color photography, cinemascope or cinerama, everything is arranged to awake attention, right up to

the traveling shot, speeding up and pretending to communicate to the voyeur-voyager a kind of vehicular drunkenness worthy of the scenic railway, an identification of the passenger with the meteoric velocity of the course.

(Virilio, 1991, p.66)

Today, as we move from our seats in front of cinema screens to our chairs in front of computer monitors, what lies ahead? This is how Virilio envisions the future:

Cyberspace is a new form of perspective. It does not coincide with the audio-visual perspective which we already know. It is a fully new perspective, free of any previous reference: it is a *tactile perspective*. To see at a distance, to hear at a distance: that was the essence of the audio-visual perspective of old. But to reach at a distance, to feel at a distance, that amounts to shifting the perspective towards a domain it did not yet encompass: that of contact, of contact-at-a-distance: tele-contact. (1995, p.1)

As I strived to demonstrate so far, the present day art consumers are trained by the cinematic apparatus to expect shorter shots and a lot of camera movement, which grabs and holds their attention. It is best illustrated by the counter-example of the philosophy behind the use of long takes and their reception by the viewers. While 'slowness' is used by the filmmakers to encourage and allow contemplation, it is sometimes received with impatience on the part of the audience.

Slow films.

There is another way to look at the trends in cinema. The scholars and students of film participating in the online forum on film and philosophy recently held a discussion on “slow films” (Film-Philosophy, July 2007). Under this term they seem to consider the movies that contain a lot of long takes, but not just them.

Overall, the slow films are discussed in opposition to or even “in militant revolt against short attention span cinema”. Very fast, discussants realize that they need a shared understanding of what the definition of slow cinema would be. “Slow compared to what? The overexcited unconsciousness of commodity cinema? Slow compared to the passing of the hours? Are surveillance videos slow?..”

Trying to come up with the criteria for slow cinema, the forum participants make interesting observations. “Some may consider 'Action Films' to be slow as many contain so little to entertain the mind while bombarding the senses”. So, the speed might be seen by the viewer from different angles. The movie could be considered slow either if the viewer is bored by the content of the movie, or for its form (i.e. its long takes). However, it gets even more nuanced. The long takes can consist of the dialogues in “gun-machine speed”, and then the film does not seem to be slow at all. So, the information load of the shot is considered by many to be the factor defining the speed of the film.

The forum participants also consider the importance of the context of viewing on the perception of the movie’s speed. The venue and the screen size affect attention and, as a result, immersion. To draw a parallel with the LAN party, one of my interviewees compared playing at LAN to watching a movie on a big screen in the theatre with dozens of other people, and playing online to watching the same movie at home, on PC monitor.

As for the correlation between changes in speed and materiality of the cinema, the discussion evokes interesting considerations. The possibility to analyse films using improved technologies, including “ripping dvd chapters and gleaning individual frames digitally” ultimately devalues the film. Consequently, “As films become more “unreal” so they, in fact, become more like real reality which is, in fact, totally virtual”.

When the Contemporary Arts Center in Cincinnati has devoted a year to an exhibition on “slow films” called “The Long View”, they accompanied the exhibition by the following instruction:

Please note: Because of the extended length, most films will not end when the museum closes. In those cases, we will begin the next day where the film left off the day before. This way, visitors can view films over multiple shorter visits, and screening times will vary per film.

(<http://www.contemporaryartscenter.org/exhibitions/long>)

Obviously, screening the films in such way forces a break in immersion, artificially creating an accident of pleasure. Moreover, it completely devalues the films as art because it substitutes the original temporality intended by the filmmakers with another, imposed by the context of screening. Instead of paying a tribute to the movies, the exhibition appropriates them as objects and, literally, announces “we got no time for this... we’ll make it fit our busy schedule... we’ll adjust it to our short-span attention...” Ironically, the very idea of watching a “slow” film on multiple short occasions edits it, creating fast “cuts” out of original long takes.

Methodological Considerations

The best part of playing is playing together.

(TV advertisement)

LAN party is a continuous, rapidly changing event, which has lots of people simultaneously present at the same physical space. The major challenge for the researcher is the fact that you can neither observe much of direct interactions between people, nor listen to their conversations. Socializing takes place in the game, or in emails and MSN chats the players are involved in during the breaks between the games. While the participants are physically co-present, they still use computers and the network to communicate with each other. In other words, there are present many agents that encourage non-diegetic immersion and allow non-diegetic machine acts.

There has not been much research done on LAN parties. The few investigations are mostly concerned with the motives of players' participation (Fetscherin et al. 2005, Jansz 2005). I argue that while video games were meant to be played online, it is the technology, and its imperfections, that brought people together to keep playing in each other's proximity. As a result, the very gaming experience is changed, and not just due to the higher speed of connection which contributes to better immersion and more pleasurable sensations. There are more consequences to playing next to each other. In first-person shooter games (which are in focus here), especially when are played in teams, gamers experience "participatory emotions" (Jansz, 2005, p.13). For instance, an event of a false move, which endangers one's teammates, elicits shame and is appraised by the gamer as endangering her social status. We might augment this argument by observing what happens in a case like that at the LAN party, when one's emotions and

thoughts get direct feedback from the teammates sitting next to him/her. In the case of an accident physical proximity is also important: it creates and potentially augments shared social experience, affecting individuals' emotions. LAN parties present a rare opportunity to observe real-time technologically mediated communication coupled with face-to-face interactions.

The interaction at the LAN could be viewed as occurring on three different levels: people directly interacting with each other, communication between two or more people facilitated by technology and interaction of each individual player with his/her computer. Therefore, it is essential to look at the methods used in Computer-Mediated Communication (CMC) and Human-Computer Interaction (HCI) research. Computer-mediated communication focuses on how two or more people communicate via computers. It looks at the way mediation affects relationships, information flow, and decision-making. For instance, CMC research targets issues of trust and lying, arising due to the (perceived) anonymity of online communication.

Human-computer interaction research, on the other hand, is concerned with improving interaction between humans and computers, making computers more user-friendly. In HCI research, ethnography is considered a useful tool to assess user's needs, to uncover user's relationship with the technology and to discover the real ways (sometimes unintended by designers) in which technology is used (Burke & Kirk 2001). For example, MacKenzie and Ware (1993) and Ware and Balakrishnan (2000) discussed the sources of lag and its effects on human performance, while these effects were measured during the experiments. Overall, it is much more favorable in HCI research to employ experiments and quantitative methods.

Adapted from social sciences, ethnography in HCI research can be conducted in the form of contextual inquiry, observational study and participant observation. Some HCI practitioners “argue that though experiments [on the actual potential user population] can be useful, a good ethnographer almost always finds something of value, whereas a good experimentalist often comes up dry” (Monk et al., 1993, p.4). Moreover, they advocate the use of ethnography in HCI emphasizing its holistic perspective, immersion in the field situation, and the need to use a range of methods, from in-depth interviewing to “simply hanging about, watching and learning as the events unfold” (Monk et al., 1993, p.3).

However, the very features which are at the core of qualitative methodology are considered as “limits of ethnography”: time requirements, qualitative presentation of results, and small-scale studies (Burke & Kirk 2001, McCleverty 1997). The reason is simple: “The ever-increasing pace of new product development has been encouraging faster and more efficient HCI work processes. These new processes are designed to be faster and cheaper” (Millen 2000). As a result, our fast times bring us another paradox – “fast ethnography”, that brings together two unmixable notions. Although CMC or HCI research could help to investigate the problem of lag, it would still be necessary to use ethnographic methods to get users’ accounts of their experiences. On the whole, the HCI research is driven by specific goals: assessment and improvement of design, and such approach is not fully suitable for studies of the gaming culture.

Another area of research which might supply relevant methods to study LAN parties is the emerging field of video games studies, which employs virtual ethnography to explore the in-game worlds. “A virtual ethnography is simply an ethnography that

treats cyberspace as the ethnographic reality” (Mason 1996). Virtual space and time, relationships taking place online, emotions they evoke and sense people make of them become subjects of investigation. However, even though the largest part of communication at the LAN parties occurs online, and is mediated by computers, people also are co-present in the physical reality, which certainly might affect their experience of in-game co-presence as well.

Given that neither video games studies nor CMC or HCI research offer a suitable methodology to study the LANs I propose to take a look at some cases from sociology of economics: ethnographies of the Wall Street trading room and the global stock market.

Computerized Stock Markets

Cyberspace it's where the bank keeps your money.

(Gibson in Morse, 1998, p.192)

Crucially for the discussion here, Virilio isolates yet another kind of accident: the virtual one. Originally, he referred to the stock-market collapse as “general accident”: a kind of accident that is generalized rather than specific and localized, and therefore affects much more people (1995). Later, however, Virilio characterizes the same events as “virtual”: “We have not understood the power of the virtual accident. We are faced with a new type of accident for which the only reference is the analogy to the stock market crash, but this is not sufficient” (1998, p.21).

So, the accident does not occur in a limited space anymore, but is inscribed in temporality, in the “global time” that simultaneously belongs to everyone. What happens then, if an accident occurs in a place that is not situated in any geophysical locality? In

other words: what happens, if something goes wrong in virtual reality? In one of the interviews Virilio expressed disagreement with Baudrillard on the subject of simulation. To simulation, he prefers the word substitution (1994, p. 2). Unlike Baudrillard, Virilio believes that we are facing not the gradual replacement of reality by its simulation, but the splitting of reality. Shields echoes this view by defining the virtual: “The virtual is not merely an incomplete imitation of the real but another register or manifestation of the real” (2003, p.46).

Drawing on the earlier discussion of the virtual reality, I would like to analyze what Virilio might mean by the “virtual accident” and argue that there are two major ways to approach this. On one hand, the *virtual* accident occurs in a virtual environment, but is considered only because it has real, material, actual implications; it affects people’s lives in some real ways (hence the example of stock market crash and its consequences). On the other hand, virtual *accident* is the accident (as an unpredicted, sudden failure of the system) that takes place in a virtual environment. I argue that such failure always has an actual, material basis. So, the really actual accident seems to get actualized only when “revealed” into existence by something already physically concretely present, i.e. material infrastructure of technology.

The ways in which the accident can impact people are not limited to the awareness of and information about it. To fully appreciate the scope and the consequences of the stock market crash due to the technical failure, it is crucial to understand the world that is affected by this specific accident.

Using the notion ‘world’ necessarily raises the question of what its materiality consists of. I answered the question by claiming that this materiality is constituted of information. This answer is consistent I think with a world that is temporal not only in the sense that it moves, as a time context, across physical space, but also in the sense of the transient, decaying character of its material content (...) The new is ‘presenced’ as-things-happen and vanishes from the screens as newer things come to pass. (Knorr-Cetina, 2005, p.43)

The above excerpt is from the research on global markets which presents us with the main features of this new phenomenon. The world of the global financial markets is an emergent reality, constantly created, re-created and changed by all its participants: brokers and bookkeepers, traders and analysts, researchers and news agents. It is a world whose existence is assured by continuous interactions between the partakers, and interaction implies communication. Historically, markets were physical locations, where buyers and sellers could meet and discuss their interests. Among other things, this co-presence affected the outcome of the transactions: impressions and opinions gathered in face-to-face interaction tend to influence all aspects of marketing, from prices to networks of distribution. In the case of the global financial markets, interaction is supported by technologies that allow instantaneous traveling of and access to the information on prices, deals, contracts, and political and economical news that can affect the former. Knorr-Cetina argues that the process of globalization and technologies of communication lead not just to development of networks, but also to the emergence of the “global scopic system... from the Greek ‘scopein’, to see” (ibid, p.40). The scopic

system acts as a structure through which information passes and flows forward. “An ordinary observer who monitors events is an instrument for seeing” (ibid). The computer screen is the reflexive mechanism that projects the “world of flows”.

The terminals deliver much more than just windows to physically distant counterparties. In fact, they deliver the reality of financial markets – the referential whole to which ‘being in the market’ refers, the ground on which traders step as they make their moves, the world which they literally share through their shared technologies and systems. The thickly layered screens laid out in front of traders provide the core of the market and most of the context.

(Knorr-Cetina, 2005, p.45)

Importantly, while originally created to suit the needs of traditional marketplace transactions, technology that is used today to sustain the global market to a large extent defines its structure and operations. The information and service providers that design and support the technology affect the ways in which market is ‘presenced’ and made sense of. For example, the amount of dealing conversations that a trader can hold simultaneously is predetermined by technology. On the other hand, and crucially for the main topic of this discussion, the very use of technologies makes the whole reality they create vulnerable to their imperfections. In the case of financial markets, these imperfections can be used strategically, pursuing political and military interests: “The *systemic risk* of a chain reaction of the bankruptcy of the financial markets (for so long masked during the promotional launch of the Internet) is now officially acknowledged,

showing that this *major risk* can also be used to exert pressure on those nations which are reluctant to give to free-trade black-mail” (2005b, p.133).

Local vs. Global

Stewart Hall argues that globalization was supposed to result in the “homogenizing modernity” (1993, p. 353), which takes away from the value traditionally being placed on the local communities, - but it did not. The latest phase of the capitalist globalization, Hall notes, has been characterized by “brutal compressions and reorderings across time and space” (ibid). Moreover, he addresses the change in the very notion of “locality” brought about by the globalization:

Paradoxically, globalization seems also to have led to a strengthening of ‘local’ allegiances and identities *within* nation-states; though this might be deceptive, since the strengthening of ‘the local’ is probably less the revival of the stable identities of ‘the locally settled communities’ of the past, and more that tricky version of ‘the local’ which operates within, and has been thoroughly reshaped by ‘the global’ and operates largely within its logic. (ibid, p. 354)

As with many effects of globalization (and reflecting the disagreement in its definition) the globality of the electronic markets is questioned by different researchers. While Knorr-Cetina focuses on the virtuality of the reality of electronic market and its time flows, Saskia Sassen, the prominent scholar of globalization, pays attention to the embeddedness of markets in space.

The continuing weight of major centers is, in a way, countersensical, as is, for that matter, the existence of an expanding network of financial centers. The rapid development of electronic exchanges, the growing digitization of much financial activity, the fact that finance has become one of the leading sectors in a growing number of countries, and that it is a sector that produces a dematerialized, hypermobile product, all suggest that location should not matter.

(Sassen, 2005, p. 26)

In fact, however, there is a disproportional concentration of large shares of financial markets in few urban centers (i.e. New York, London, Tokyo, Paris, Toronto, and so on). Analyzing the reasons for this trend, which contradicts the logics of geographical dispersal, Sassen names the importance of social connectivity as an important factor.

When the more complex forms of information needed to execute major international deals cannot be gotten from existing data bases, no matter what one can pay, then one needs the social information loop and the associated de facto interpretations and inferences that come with bouncing off information among talented, informed people. (2005, p. 27)

So, like Knorr-Cetina, Sassen emphasizes the importance of the local context, in which the virtual market is accessed. In agreement with Virilio's vision of "splitted

reality”, Sassen argues the double embeddedness of electronic market in the “topography that weaves back and forth between actual and digital space” (2005, p. 32).

In the same way that modern global market exists in the realm of electronic impulses and bits of information, experiences of LAN’s participants are mostly associated not with their immediate physical environment, but with the virtual worlds in which they interact with each other. On the trading floor, traders, although they are physically co-present, mostly communicate online or over the phone.

When traders arrive in the morning they strap themselves to their seats, figuratively speaking, they bring up their screens, and from then on their eyes will be glued to these screens, their visual regard captured by it even when they talk or shout to each other, their bodies and the screen world melting together in what appears to be a total immersion in the action in which they are taking part.

(Knorr-Cetina, 2003, p.44)

Replace “traders” by “players”, and this description might as well fit what we see at LAN parties (see Figure 7). Both trading floor and LAN parties provide examples of the computerized spaces. It is important to keep in mind, however, that the market first existed in form of social networks, and only relatively recently went on screen. Conversely, the LAN parties seem to represent the localized processes that are part of the globalization even though “do not necessarily scale at global level as such” (Sassen in Gane, 2004, p.127).

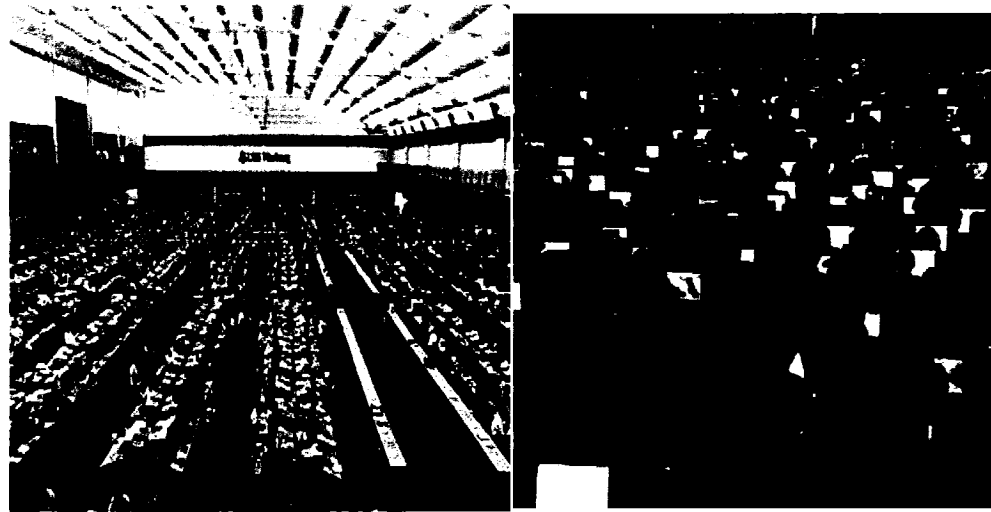


Figure 7: on the left – trading floor; on the right – LAN party.

Chapter Summary

Technology is prone to accidents, while the danger and the severity of their consequences grow with acceleration of processes. Today, with the spread of communication technologies, it is necessary to pay more attention to the possibility of the new type of accident: the virtual one. Since virtual environments are based on the real technical infrastructure, the accidents that can happen in these environments also have very real consequences. To appreciate these consequences I proposed to analyze the routine which gets interrupted by the accident: the reception of the medium. The way to maintain the user's relationship with the medium, I argue, is by affecting the experience of time. Specifically, this effect is achieved through the speed at which the medium is presented. The examples considered in the chapter are from different areas: fine arts, cinema, and video games. Furthermore, the argument develops through comparison of LAN parties and electronic markets, as formations representative (in a somewhat paradoxical way) of the process of globalization.

Chapter 3: The Social

Visualized Communication

Traditionally, in social sciences communication via technological means (i.e., computer networks) is not discussed in technical terms, and my inclusion of discussion of networks, aiming to address the physical reasons for lag, is a rare exception. However, while communication is not viewed as an objectively existing physical process by social sciences, it is viewed as such by the arts. In the year 2000 the Dutch Electronic Arts Festival (DEAF) was dedicated to the theme of “Machine times”. One of the projects, “Ride the Byte” (see Figure 8), offered:

an impression of the complex structure of the Internet by visualizing the trajectory of individual data packages (bytes) sent from the exhibition site to another location on the globe... Ride the Byte visualizes the ever-changing spatio-temporal structure of the Internet, indicating both its massive size and its technical idiosyncrasies. (art+com, 2000, p. 172)



Figure 8: Routes of data packets around the world. Source: <http://www.artcom.de>

This interactive installation demonstrated what happens when limited bandwidth and “temporary failure or congestion at certain nodes can necessitate the rerouting of data” (ibid). Most importantly, this information was visually presented. Probably, this is as close as it comes to visual representation of lag, but even in this case there are only hints to its existence and its effects (i.e., rerouting of data). Still, there is no representation of lag as it is experienced by individual user. To analyze the reasons for the lack of use of lag in visual arts, I will look at the area of artistic games modifications; particularly, the artistic use of another technical accident – the glitch.

JODI

In my interviews with LAN players I repeatedly heard that the online lag is one of the primary reasons for occurrence of the LAN parties. Interestingly, however, some players learn to adjust their strategy to the speed of the game. In *Warcraft*, for example, which is a fantasy game very different from *Counterstrike*, but also popular at the LAN parties, players choose to play different characters depending on the quality of the speed. They might prefer fast but vulnerable character to the strong but slow one, if the speed is good. In this way players make lag part of the game, rather than see it as an annoying obstacle interfering with the gameplay.

Game players are not the only ones who make game’s material basis part of the game. Artists modify the games, and, as suggested by Alexander Galloway, they are mostly interested in tampering with game technologies, and not the actual gameplay. In fact, the artists aim to “disrupt the emotional spell of the narrative and thus force the spectator, by interrupting the narrative flow, to reconcentrate and refocus his attention”

(Wollen in Galloway, 2006, p. 108). It seems the artists seek to artificially (re)create the conditions that sometimes emerge due to an accident that interrupts the game. Moreover, they want to make these instances an integral part of the modified games, or “game mods”.

Analyzing the artistic game mods, Galloway suggests that “the three aesthetic realms most often modified in artist game mods are space, visuality, and physics” (ibid, p. 118). I focus on the latter realm and propose to look at the invented physics in the work of a European duo of digital artists called Jodi: a name formed by joining the names of the members Joan Heemskerk and Dirk Paesmans. Their *untitled game*, for example, “introduces a set of entirely counterintuitive physical laws, wherein space wraps and spins for no reason at all. The physical laws of the work are not predictable or intelligible. They are entirely invented” (ibid, p. 120). In the conventional games there is a direct correlation between the operator’s actions and the machine’s response, and it serves as a basis for a feeling of interactivity during the gameplay. At the same time, “in artist mods the keyboard and mouse often become uncoupled from the physical space of the game entirely, leaving the player at a loss for any type of faithful interactivity” (ibid, p. 121). In light of these descriptions I find two moments interesting to consider: immersion and controlled unpredictability.

The interaction between a human operator and a machine takes place through the code: the machinic language that translates commands into actions. Galloway quotes Kittler who wrote: “Code is the only language that does what it says” (ibid, p. 5). So, the apparent lack of correlation between the command and the resulting action is also achieved through changes made to the code. The game is simply re-programmed to react

in a new (or random) way in a surprising for the operator way. It would be interesting to look at what happens to the player's/viewer's experience of continuous dialogue with the game when it does not react in the way one is used to. Does the player loose the interest and stops playing, or does she learn the new rules of the game? Is there still a game to play after all? Galloway suggests, that artists tend to consider games as nothing more than games technologies, and modify them primarily on the physical level of the game engine, rather than on the level of the gameplay.

Many artist mods, like Jodi's, are more mods of game engine technology than they are of the games themselves. The interest is not in modifying gameplay, but in modifying the representational space. Spaces once designed for player interaction, in fact spaces that only gained meaning through interaction, are transformed into spaces to be seen and watched, rather than played.

(Salen in Galloway, 2006, p. 108)

So, it is not surprising after all that the players become viewers and the game becomes a piece of art, even if still somewhat interactive. The experience of the immersion in the game space and game time is not possible if the space has been altered and the tempo has been interrupted. The communication ceases to be fruitful when the code is no longer the common language between the person and the machine. "The program becomes the performer, I am no longer player god in control – I must concede some of my agency to the code" (Schleiner in Galloway, 2006, p. 121).

The recounts of experiences of Jodi's work emphasize the use of "beautiful bugs in the system" (p. 121) and technical glitches (see Figure 9). The artists use the imperfections of technology, and as a result the original game design gets turned inside out, while all the accidents inherent to it get revealed and aestheticized.

Figure 9: images from Jodi's website: www.jodi.org

Galloway's analysis of the gamic actions provides the framework missing from contemporary theory for consideration of material infrastructure along with the consequences of its materiality. However, as admitted by the author himself, the types of gamic actions and a summary of differences between formal video games and game mods are just tentative, provisional models that can be adjusted and developed. As I mentioned above, I seek to enrich this analysis by introducing the case of lag, both on the level of actual gameplay and its potential use in game mods. I suggest that lag is significantly different from other types of technical accidents, and therefore deserves separate discussion.

Importantly, in the current theoretical discourse there is a discussion of another technological accident and its use in digital arts: glitch. The first “Glitch Symposium” took place in Oslo in 2002. In 2004 a student in multimedia design wrote a dissertation on “Glitch aesthetics”, which since has been circulating the Net and became a source of reference, because it was the first (and only) attempt to look at glitch in a systematic way. Myself, I also draw on “Glitch aesthetics”, although critically. Main criticism, obviously, comes from the fact that the dissertation does not consider lag. I do consider glitch in my research (only visual glitch, not the one found in sound), and will try to investigate why lag is missing from the contemporary analysis.

To differentiate lag from other types of accidents, it is necessary to look at the definition of a glitch. As the author of the “Glitch dissertation” mentions, even by the Glitch Symposium it was admitted that “a concept has become too wide” (Moradi, 2004, p. 5). Still, I will try to isolate some of the characteristics of the glitches. First, their origins: “Partial causes for program-based glitches are infinite loops, division by zero’s and null pointers. The unanticipated consequences of such programmatic structures in image delivery may result in visual cloning or repetition” (ibid, p. 29). So, glitches are caused by errors in the code. In other words, sometimes glitches are results of program “bugs”. On other occasions, however, they can be caused by electrical malfunctions, little spikes in the current (ibid, p. 9). Overall, they are discrepancies between what was intended to be represented and the actual visual results (see Figure 10).

Interestingly, there is a pattern to these irregularities: sometimes in a glitch everything is broken down either to its individual elements, or parts of the image

are shifted and incorrectly translated (...) In the digital domain this tearing effect is almost always horizontally inclined, due to the way images are read and rendered by computers. (ibid, p. 28)

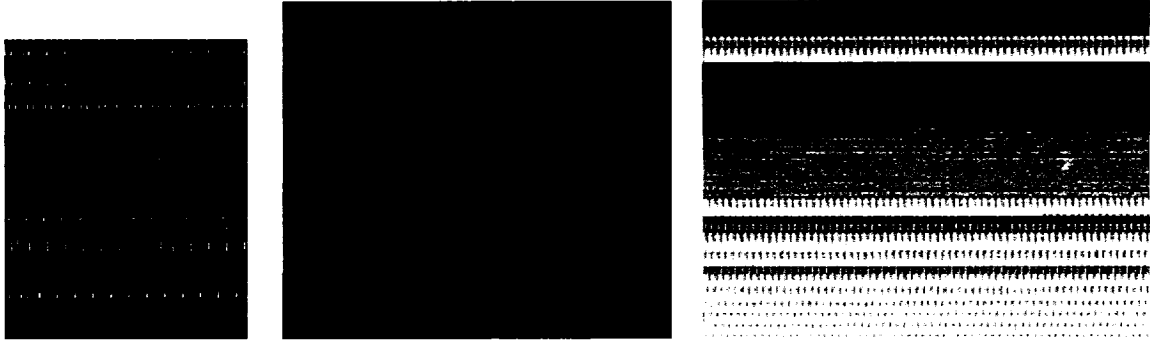


Figure 10: Glitches by Benjamin Fischer. Source: <http://www.typedown.com/>

Another feature of visual glitch: repetition. The elements of the original image are not just torn apart and replaced in a chaotic way, but they also seem to clone themselves and to reappear on the monitor multiple times, in seemingly random locations. So, the visual horizontal fragmentation of the image; its reproduction on screen in different sizes, colors and locations, and dramatic color changes all hinder the possibility to view the image as intended.

In the guise of an attention-seeking anomaly, [glitches] can also illustrate operational complexity in things we take for granted, such as the operation of transferring a digital life from one location to another on the Internet. During internet data transfer each file has to be broken into packets, addressed individually, sent and resent if any packets are lost, and finally the file has to be reassembled at the receiving end. This process is invisible to us, yet this

operational perfection in everyday technology is taken for granted. When pure glitches happen, they alert us to the presence of processes that can go wrong. (Moradi, 2004, p. 32)

So, like any accident, glitches draw attention to the material infrastructure of the processes they spoil. Intriguingly, while the above quote speaks to what takes place on the network and seems to serve as a basis for discussion of ruined communication, it does not assert the existence of lag. Probably, that is because lag does not get expressed in any visually captivating ways. Furthermore, it might be necessary to revise the very definition of lag as a discrepancy between the expectation and the actual result, because this definition suits glitches as well. In my opinion, more proper lag could be explained precisely in contrast to visual glitches: as a moment when communication slows down to a complete inertia, and ceases to exist. In the case of glitch, the receiver recognizes that something went wrong in the process of communication; the glitch can be easily identified due to its characteristic features I mentioned above. In the case of lag, however, there are no identifying signs other than lack of *any* feedback: the file does not transfer, or the game opponent does not make a move, or simply the key pressed does not seem to execute any command.

To alert about the potential imperfections of technology is the trait of “real” or “pure” glitches. Some artists create illusion of the photo- or TV-image in their paintings, and representation of a glitch serves as a pointer to technological source and reinforces this illusion (see Figure 11).

Gerhard Richter's unique ultra photo realistic style, in his 'Woman Descending the Staircase' shows meticulous attention to recreating the style of TV imagery on canvas, right down to conveying scan lines, colour distortion and lens blurring.

(Moradi, 2004, p.25)



Figure 11: Richter: *Woman Descending the Staircase*.

Source: <http://www.artchive.com/artchive/R/richter.html>

If the “slices” of the Duchamp’s *Nude Descending a Staircase* were not fixed by colors on canvas, but instead were moving very fast, we might get a comprehensive and realistic image of the object. However, painting captures only separate moments in time, even though the Cubist manner does try to reunite them through depicting in multitudes. Still, the slice of a gesture is “just one of a thousand fleeting states, not quite real and potentially ugly” (Gleick, 1999, p.61). This “ugly slicing” is what lag would look like if

represented visually. However, lag does not find expression in art, and instead Richter's *Woman* demonstrates the aestheticized glitch.

Moradi proposes the use of the term “glitch-alike” to describe the malfunctions artificially created for the artistic sake (2004, p. 10). Glitch-alikes are created following the mentioned above visual qualities of pure glitches: fragmentation, repetition, linearity and complexity. “Glitch artists either synthesise glitches in non-digital mediums, or produce and create the environment that is required to invoke a glitch and anticipate one to happen” (ibid). However, it is hard, and often impossible, to fake the complexity. An artist recounts: “The following glitches were from an incomplete mpeg download and an interrupted JPEG image. They are not mannered recreations but actual screen captures. I have no idea how to recreate them” (Spill in Moradi, 2006, p. 32). The accidental nature of glitch gets expressed through its logically impossible but visually captivating coexistence of repetition and randomness. “Normally we would not expect something coincidental to be visually repetitive in a highly systematic way, especially with razor sharp precision!” (ibid, p. 30). Still, the most popular works play with this accidentality. Jodi's work, for example, is called “a clever simulation of unpredictability performed in software” (Cramer in Galloway, 2006, p. 115).

Foregrounding

There is an ongoing process of perfectioning of technology, expressed in an increasing resolution and clarity of images, along with increase in processing power and bandwidth.

In the world of perfect telecommunication, glitches are undesirables for which countless error checking protocols exist with the sole purpose of eliminating them. In terms of representation, the ones that don't make it into modes of audio or visual communication are merely represented as a trace log of error occurrences that could be used to eliminate further instances before they happen. (Moradi, 2004, p.72)

So, on one hand the glitch is being eliminated in consumer electronics. On the other, however, there is a parallel process of imitating the older media's distortions. Now, companies create special plug-ins simulating effects of warped audio records and scratched vinyl, or bad TV interference on a video. This trend among commercial companies to fetishize the malfunction seems to be coupled with the "retro aesthetics" (ibid, p.17) of nostalgic appreciation of the older media. Moreover, in this way the superiority of the newer technologies gets emphasized, reinforcing the notion that newer is closer to the ideal: the complete transparency and unobtrusiveness of the medium, which leaves the user with the pure image.

Video games artists, similarly to the cinema avant-garde, oppose this philosophy of transparency and instead follow a rather holistic approach by including the very apparatus which enables the game, in the image and the gameplay itself. It can be seen as "revealing the background processes that go on invisibly during the transmission of digital images..." and show how their "miscalculations contain their own form of visual logic" (Spill in Moradi, 2006, p.32). This principle is called "foregrounding", and the foregrounding of the gaming apparatus is fulfilled through either image or code. The

examples of the latter are game mods in which “the work often lapses into pure data, streaming real-time code up the screen with little or no representational imagery at all” (Galloway, 2006, pp.114-115). Now, once I have described the use of glitches in contemporary art, I would like to reflect in more detail on the reasons behind their use, and effects on the viewers, particularly of the video games mods.

Future of countergaming

Galloway believes that the video games artists represent the “countergaming” cultural avant-garde, which has not reached its potential however.

Countergaming is essentially progressive in visual form but reactionary in actional form. It serves to hinder gameplay, not to advance it. It eclipses the game as a game and rewrites it as a sort of primitive animation lacking any of the virtues of game design. This is essentially the reason why Jodi’s work is apolitical (...) [it] aims to create better abstraction, not to create better (or different) gameplay. (ibid, p. 125)

Virilio also argues that in order to provide a critical statement about the system, art should act against the system’s structure, and not from within its frame.

Q: Today there is an entire area of art in which artists work on computers.

A: I have nothing against it... If they are able to penetrate the software, I’m not worried. If the software is still a fruit of anonymous programmers dependant on

big corporations, I'm against it... I have always said: Penetrate the machine, explode it from the inside, dismantle they system to appropriate it.

(2005, pp.73-74)

I completely agree with the both views, while I wonder about the reasons for creating better art rather than better game, and one of the obvious answers seems to be: the way in which the game is altered eliminates any possibility for the gameplay; at least, for the gameplay in its conventional understanding as outlined in this chapter. The fascination with the accident in design, as I stated before, leads to the loss of interactivity between the operator and the game.

The moment a system crashes, the moment in which a user can no longer test the effects of his or her work, the moment control is lost and the system takes on its own materiality, all these moments are appreciated and examined in all their detail by Jodi. (Schultz in Galloway, 2006, p. 122)

Potentially, the aestheticization of glitch could be used to formulate “a new way of visualising data or recognizing information” (Moradi, 2004, p. 72). The anomalies can find a place in the new patterns of reality. Alternative modes of a gameplay might arise, going beyond the messing with the visual components of a game. Ultimately, the game's position in the world might change. The counter gaming is yet to get realized as *gaming*, and not just as game-based art (Galloway, 2006, pp. 125-126).

Lag as a Social Accident

Overall, the main difference between the two different accidents, glitch and lag, is in their emergence. Glitch may spoil the communication, for instance: to corrupt a file transfer between two computers, however, the reasons for malfunctions are in one of the computers' hardware. The lag, on the other hand, is embedded in what happens *between* the communicating computers, on the network.

Figuratively, a glitch might be seen as a local accident, whilst lag is always global. Their effects also differ. Glitch found its place in the contemporary art and is being appreciated for its accidental, irrational, and visually captivating features; it encourages contemplation. At the same time, lag has not been utilized by digital artists because while it definitely takes place, it carries no visual information that might be valued. In fact, it evokes mostly frustration and other negative emotions. However, I argue that for this very reason lag might be seen as a social accident. Its occurrence encourages not contemplation, but action, aimed at restoring the previous state of affairs (i.e. speed of connection and player's temporal experience). Lag is a social accident, because it can only happen when there is an ongoing communication between two or more people. LAN parties are a way to deal with this accident.

Reversed Globalization

The process of globalization depends on the communications infrastructure, and as most activities gradually move into the de-localized real-time realm of the virtual reality, they become susceptible to the danger of the virtual accident. Technology fails, unable to provide adequate communication, and leads to the failure of the project of

globalization. People reverse the process, shifting their activities to the spatial localities, where interaction can not be spoiled by the time delays of online communication. LAN parties are just one example of this trend towards the reverse of globalization.

In light of Virilio's observation that new communication technologies lead to increasingly sedentary lifestyle, LAN parties seem to provide an interesting challenge to the theory (Virilio, 1997, p.20). Or do they? Writing about the importance of speed to the contemporary technological mediation, Virilio suggests that "modes of instantaneous transmission result in our bodies becoming well-equipped yet invalid", as a result of being confined to the steady physical locations at which we "plug in".

My purpose here is to look at the LAN parties using Virilio's "accident thesis". Therefore, a number of questions are to be addressed: what is the relationship between LAN parties and the tendency towards globalization of accidents? Is LAN a factor in or a consequence of this trend? And, finally, what can go wrong at a LAN? In general, any problem affecting all or most of the participants would be related to the quality of connection. So, there might be circumstances when it is either impossible to access the network to begin with, or the process gets interrupted or terminated. Let us take a look at these situations in some detail.

Previously mentioned problem of lag arises when a large number of people try to coordinate a social action, in this case: to play a video game. The more people use the same games' server, the higher becomes the delay of their experiences. In addition, player's Internet connection may suffer from low speed and bandwidth which also increase the experience of lag, up to the point when the delay is so significant that the player "lags out" of the game, since there is no sense in continuing playing it. Especially

n FPS, where speed of reaction is crucial for playing, loss of time due to lag is a disadvantage that can not be compensated for. Significantly, lag always comes up in the interviews with LAN players, when they express the desire to overcome it by increasing the speed of connection and simultaneously limiting the number of participants. So, if lag is to be seen as an accident of technology that fails large numbers of people while meant to connect them (and the more people it is supposed to connect, the more people become susceptible to its failure), then LAN parties are attempts to prevent the globality of this accident. In a way, bringing the players to the same physical space localizes the accident as well.

LAN parties stand aside, as was noted before, as rare exceptions. These are the occasions at which a group of people comes together to avoid or overcome imperfections of the communication technology, while representing for the length of the event 1 (one) user. There is a whole range of different events that fall under the category of a LAN party; the number of participants can vary from several people to several hundreds of players. However, all of them will have a common technical feature: extremely high speed of the internal communication (up to 1000 times faster than the high-speed Internet connection one might have at home). Moreover, the main computer, called the router, and to which all other computers are connected, is the only machine connected to the Internet. So, the very nature of LAN's technical configuration makes the social regulation (or, rather, self-regulation) of the event extremely important. Any deceitful or harassing behavior does not stand a chance as means to gain an advantage in the game, because it can be easily detected and terminated by other players. A whole set of norms and rules of conduct, some of them explicit, but most implicit and shared, makes the LAN party an

ideal environment for a perfect gaming experience.

Three types of “accidents” came up in my interviews with LAN participants and organizers: virus, electrical power loss, and ‘denial of access’ situation (which was, supposedly, a “fake” accident). The virus came from the Internet, infected one computer at the network, and quickly spread around. So, the organizers had to find anti-virus and treat all the infected PCs, which took them at least 8 hours. After that case, the organizers warned the participants that they should update their Windows protection before coming, otherwise they are at risk. I find this interesting, because the issue of responsibility is shifted here: it is a sort of collaborative creation of the positive experience. Moreover, this definitely means that both organizers and participants are aware of the danger of this kind of accident.

Computers need to be fed electricity, and, as the story goes, at one point the facility at which the LAN party took place did not have enough power for all PCs. So, the system just got “fried”, and the organizers had to find new power outlets. As a result of the power loss a lot of participants simultaneously were left without electrical power. Obviously, they could not continue playing and were very frustrated with the situation.

Finally, the ‘denial of access’ situation is the one where computer’s processor can’t function because it is overwhelmed by the amount of information. The story goes like this: at the finals on one of the tournaments, one of the teams was lagging a lot, because their PCs were (supposedly) bombarded with information by some people present at LAN. Probably, these were some fans of the second team – nobody knows what exactly has happened. Importantly, however, it most probably was a “creative use of technology”, based on the knowledge of its weaknesses. So, gathering at a LAN party in

an attempt to work around the problem of lag, gamers expose themselves to the jeopardy of simultaneous impact in case of an accident. Significantly, the virtual accident persists, either on the global or local scale.

I would like to draw more attention to the fact that LAN's technical configuration allows considering the resulting system as an individual user. One of my interviewees, an experienced organizer of LAN parties, offered a great metaphor describing LANs (and Internet in general). A LAN can be seen as a room full of people (computers), with a gate-keeper (router). If a person wants to talk to someone from another room, he must send a message through the gate-keeper. There are a great number of rooms in the building (Internet). A LAN that is not connected to the Internet would have its door shut (and no gate-keeper). Paradoxically, LAN doesn't have to be connected for the games sake, but it is the players who insist on having Internet connection and use it for chats, emails, and downloads. So, more socializing with the outside world is going on, while LAN represents a protected space on the global network.

LAN Parties vs. Virtual Communities

Robins and Webster note that while Fordism produced comparative economic prosperity, it had some 'malfunctions' as well: "ecological pollution, the overexploitation of natural resources, the standardization of production and consumption" (1999, p.114). In the face of these 'side-effects', opposition was mobilized by diverse social movements. The Information Revolution of the 1980s offered counter-mobilization, absorbing and containing the dissatisfied, offering them distracting and compensating alternative. Fred

Turner describes the counterculture movement and quotes one of its leaders, Stewart Brand, who recounts on the era of the 1970s:

We were completely apocalyptic. The sky was falling, the population was exploding, people were starving, yet we went on. When the energy crisis finally happened in '73, we said, "Aha, it's here, the end of the world." It turned out we were wrong again..." (Brand in Turner, 2006, p. 128)

That was the "now generation", because they figured there would be no "then". One of the ways to deal with this hopefulness was to turn to drugs. Another was: to build online communities. However, Rob Shields argues that virtuality distracts from present by focusing on future; the future that exists only in an abstract form and is yet to be realized: "Power moves into an anticipatory, future-oriented mode (...) By implication, resistance and opposition must also move (...) towards a future-oriented mode geared around issues that may not yet have spawned disasters or events" (2003, p.209). It is interesting to consider Shields' view, while I argue that surfing the net or playing a video game is an ideal case of preoccupation with the present, and lag is an interruption in its flow.

Towards the end of the 1970s, disillusioned by the failed attempts to live a self-sustained, close-to-nature, back-to-the-land life, former communalists concluded:

...self-sufficiency is not to be had on any terms, ever. It is a charming woody extension of the fatal American mania for privacy... It is a damned lie. There is

no dissectable self. Ever since there were two organisms life has been a matter of co-evolution... (Brand in Turner, 2006, p. 121)

So, they turned to the celebration of the systems theory and of the power of technology to foster social change. Many of the Bay Area first computer engineers and programmers carried these ideas and were active members of the countercultural community. In 1985 former counterculturalists, along with hackers and journalists, joined in the newly created computer network: the WELL (Whole Earth 'Lectronic Link). It was "a teleconferencing system within which subscribers could dial up a central computer and type messages to one another in either asynchronous or real-time conversations" (ibid, p. 141). Technically, the WELL was not different from other systems that began to appear around same time. What it stood out for was the set of ideas it carried forward and the interpersonal links that pre-existed and were enhanced and strengthened through the online interactions.

Along with their LSD trips the first net-surfers got an opportunity to experience the trips in the virtual reality. Ironically, the descriptions of the two often sound very similar. Drugs are known to alter one's perception of reality (hence the "trips" into the spaces that exist only under the influence). Moreover, LSD users often recount the feeling of a non-physical union with some sort of the collective conscience. Finally, and crucially for this discussion, the "trips" always affect the individual's perception of time. For many of the generation, "both LSD and small electronic devices served as technologies for the transformation of consciousness" (ibid). Apparently, both turned out to be very addictive.

While “the new ICTs promised to meet and satisfy the clamour for more freedom, democracy, leisure, decentralisation, and individual creativity” (Robins & Webster, 1999, p.114), there went on a parallel process of appropriation of this leisure time by the capitalist corporations. The executives of these companies “tended to believe that it was digital technology rather than strong off-line, interpersonal networks or a shared countercultural idea set that made the establishment of community online possible” (Turner, 2006, p. 161). So, the corporations started sponsoring online communities in order to create new markets and to get new customers. This is where LAN parties stand apart. First of all, these are not purely “virtual” communities, because playing is coupled with face-to-face interactions. Secondly, the players come together for clear pre-determined reasons: they want both better quality of play in a lag-less environment that LAN provides, and to have fun in the group of people who share interest in the video games. Finally, while some players frequent several LAN parties every year, these are not ongoing events, neither constant communities. So, as much as the players insist on appreciating the “fun” of playing at the LAN, they do not come there to meet specific people, but for the experience itself.

Speed as Control

Talking about people’s attitude towards reality, Jean Baudrillard observes:

We seem to be driven by a huge and irresistible compulsion that acts on us through the very progress of our technologies (expanding for example in what we

call “information highways” and could as well call “disinformation highways”) – a compulsion to draw ever closer to the unconditional realization of the real.

(2000, p.65)

Thanks to the development of science and technology, “things become so accelerated that processes are no longer inscribed in a linear temporality, in a linear unfolding of history” (Baudrillard, 2000, p.77-78). You can access what you want when you want with a momentary speed. Moreover, you can realize your ideas by simulating them in virtual reality.

Both Virilio and Baudrillard draw attention to the personal subjective experience of time and the way it gets affected by the development of technology. More concretely, they talk about the “immediacy of the information” (Virilio, 1991, p.44), or the “instantaneity of all things in global information [which] we call “real time”” (Baudrillard, 2000, p.65). Furthermore, both of them believe that instantaneity leads to vanishing of time as it is: “Because of course a perfect time has no memory and no future” (Baudrillard, 2000, p.65). The consequences for humanity are rather crucial, since there can be neither rationality nor reality in the constant “now”. No causal relation, no continuity is possible if we do not perceive of time as linear and irreversible.

Baudrillard argues that due to the disappearance of illusion the real is in danger of ultimate vanishing, for we need the imagination in order to be able to create. Today, however, the process of creation has been sped up to the degree where only re-creation, re-production remains possible. “We move into a world where everything that exists only as idea, dream, fantasy, utopia will be eradicated, because it will immediately be realized,

operationalized” (Baudrillard, 2000, p.66). While both authors identify subjective perception of time as a subject of control and manipulation in the course of (human) (technological) history, Virilio envisions future acceleration and associates speed, to which he always refers as having a vector, with power: “You have no speed, you are speed!” (Virilio, 1991, p.43). Finally, he assumes that people are no more directed towards desires by the external powers, but are driven towards them by personal expectations, coming from previous knowledge and the momentum acquired since the beginning of the movement.

Significantly, speed controls both individual and social perceptions of time. Speed has implications for power, including political command. To be faster means to be in control: consider, for example, a case of war, which Virilio discusses a lot. He pays a lot of attention to the acceleration, talking about speed being used strategically and a subject to manipulation, especially by the military: “the goal sought by power was obtained by (...) the ubiquity, the suddenness of military presence, a pure phenomenon of speed, a phenomenon on the way to the realization of its absolute essence” (1991, p.44). For Virilio, it is the politics, the military, and the science that might be seen as structures of power behind the development of technologies which in turn allow for higher speed of communication and, consequently, of everyday life.

Propaganda

While LAN parties provide a perfect environment for pleasurable gaming and social experiences, and resolve many issues associated with playing online, the best rationalization of their success and the reason behind their emergence seems to be the

“need for speed”. Virilio’s discussion of video games as becoming addictive might explain why gamers would do anything to improve and prolong the experience of play. Faster connection, larger monitors, keyboards and mice specially designed for gamers – these are only few examples of the huge industry working to enhance the gamers’ experience.

When one observes how much research effort in advanced technologies has been channeled into the field of amusement (viz. video-games, real virtuality goggles, etc.), should this instantaneous subjugating potential – and it has been applied successfully in history before – which is being unleashed on the populations by these new techniques remain concealed? (1995, p.4)

Indeed, the “subjugating potential” can not remain concealed, and LAN parties provide an illustration for Virilio’s argument. Not just the industry works on new technologies for the field, but gamers themselves manipulate, adapt, modify the hardware to achieve better, more realistic playing experience (and, of course, better results in the games) – hence the whole subcultures of case modders and overclockers. Moreover, we might need to reformulate the question about the accident *at* the LAN. New inquiry would be: how LANs *are* the accidents, in this “society where the screen has become the substitute for the battlefield of the great wars of the past” (2003a, p.41).

Lazarsfeld and Merton suggested neither monopolistic nor canalizing propaganda proves effective unless it is supplemented by face-to-face contacts (1960, p.510). Their case study was the propagandistic success of a politician, who did not just address the

masses through radio talks and centrally distributed newspapers, but organized face-to-face discussions in small groups. “This complex of reciprocal reinforcement by mass media and personal relations proved spectacularly successful” (ibid).

The Soviet Union has also made large and impressive use of mass media for indoctrinating enormous populations with appropriate ideologies. But the organizers of indoctrination saw to it that the mass media did not operate alone. “Red corners”, “reading huts”, and “listening stations” comprised meeting places in which groups of citizens were exposed to the mass media in common. (ibid, p.511)

Jonathan Crary also considers the use of “spectacle” by fascist and Stalinist propaganda. In the 1920s, Goebbels innovatively used sound and image, but devaluated the written word, “because reading implied time for reflection and thought” (1989, p.104). Moreover:

Goebbels and Hitler had a notion of group reception, believing that this was the most effective form of reception. Public television halls, seating from 40 to 400, were designated, not unlike the subsequent early development of television in the USSR, where a mass viewing environment was also favored. (ibid)

Applied to the LAN parties, these analyses might reveal that what seems to be a voluntary gathering, brought about by technical problems and free will, in fact is still a

very controlled environment. This might be what Virilio calls “inhabiting the accident”; LAN parties do not change but reinforce the system, since emerge within the system’s boundaries. I consider the potential use of the “party” environment for the propaganda purposes not to undermine the seeming spontaneity of the small LAN parties, but to warn against the effects of “group reception” at the large LANs sponsored by soft- and hardware companies interested in lanners as potential customers.

The Paradox of Communication

In accelerating, globalization is turning the world inside out like a glove – from now on, the near is foreign and the exotic close at hand.

(Virilio, 2003a, p.132)

The case of the trading floor, discussed in the previous chapter, provides an example of a paradox emerging with use of new information technologies, discussed by Manuel Castells (1996). While technology allows for social interaction without physical contiguity, it also increases the importance of interaction grounded in the physical locale. The network connectivity multiplies interactions that become repetitive and predetermined. Consequently,

The value of less-directed, spontaneous and unexpected interactions that take place with physical contiguity will become greater. Thus, for example, as surgical techniques develop together with telecommunications technology, the surgeons who are intervening remotely on patients in distant locations are

disproportionately clustered in two or three neighborhoods of Manhattan where they can socialize with each other and learn about new techniques, etc.

(Beunza & Stark, 2004 p.381)

Castells' observation has been supported by findings of studies of automated control rooms (ibid). Moreover, the ethnography of the computer-supported trading room, which I used as a case parallel to LAN party, documented the following account:

It's hard to say what percentage of time people spend on the phone vs. talking to others in the room. But I can tell you the more electronic the market goes, the more time people spend communicating with others inside the room. (ibid, p. 382)

This situation is also consistent with Sassen's observation on the increased importance of local social networks for making sense of information received from remote locations (Sassen, 2005, p. 27).

To discuss the implications of technologically mediated communication, Ursula Franklin emphasizes the differences between reciprocity and feedback:

Reciprocity is some manner of interactive give and take, a genuine communication among interacting parties. For example, a face-to-face discussion needs to be started, carried out, and terminated with a certain amount of reciprocity. Once technical devices are interposed (...) the reciprocity is distorted, reduced, or even eliminated. (Franklin, 1992, p.48)

Franklin calls the technologies “non-communications”, and argues that a physical distance between the parties has profound political and psychological consequences. Mediated interaction allows not reciprocity, but feedback, which is significantly different:

Feedback is a particular technique of systems adjustment. It is designed to improve a specific performance (...) the purpose is to make the thing *work*. It can improve the performance but it cannot alter its thrust or the design. Reciprocity, on the other hand, is situationally based (...) It is neither designed by the system nor is it predictable. (ibid, p.49)

Not playing by the rules eliminates the game, in case of a video game played on computer. In the face-to-face situation, however, it might lead to negotiations, adjustment, and either creation of a new game or totally “new and unforeseen developments” (ibid). As for the temporal experiences of people communicating via technological means, Franklin’s argument supports the vision of a computer dictating the pace of interaction. Moreover, she suggests the far-going implications of global use of technologies:

What ought to be of central concern in considering our common future are the aspects of technological structuring that will inhibit or prevent future changes in social and political relations. (ibid, p. 48)

Structuring is the keyword here, since use of technology implies actions within its rigid structure, determined by design. Relationships with and via technology are also defined by its technical characteristics, unless, like Virilio advocates, we act outside of structure, consequently changing the intended outcome.

As was mentioned above, the computer networks are systems created for the purpose of sharing information and resources. However, the work involved in both creation of this information and its consequent processing at nodes of the network is not shared.

Women who work in automated offices often report how much human isolation the automation has brought for them. When work isn't shared, the instruments of cooperation – listening, taking note, adjusting – atrophy like muscles that are no longer in use. (ibid, p.51)

Thus, Franklin's observations shed the light on the "paradox" of increased value of face-to-face interactions in computer-supported environments. Pierre Levy emphasizes that this situation reflects the global ongoing process:

The image of the terminal-man for whom space has been abolished, immobile, glued to the screen, is nothing more than a fantasy dictated by fear and misunderstanding of phenomena that are subject to deterritorialization, globalization, and *a general increase in relationships and contacts of all kinds*. (20001, p.196)

Pleasures of Synchronicity

I would like to once again draw attention to the fact that in the computer-supported environments (whether it is automated offices, NASA control center, LAN parties or trading rooms) the communication takes place on several different levels: between humans, between machines, and between humans via machines. As a result, the temporal experience of the human user requires constant adjustment, since the pace of interaction with a computer differs from interactions with other people.

One of the most pleasurable human experiences is to be in synch with others. Psychology says it is about being a part of something bigger, not being lonely, feeling needed and appreciated. Neuroscience says that there are biochemical processes in our brain that give us the sense of euphoria when we achieve synchronization with external rhythms.

People are certainly always in search of synchrony and rhythmicity, particularly when their own emotional states are chaotic. Rhythmicity has something sustaining, but also something orienting. Rhythmicity has something that produces pleasure. (Linke, 2000, p.34)

The complete synchronization, however, would send us into epileptic fit, because for brain to function properly there always should be some disorder among the nerves. This disorder is a result of discrepancy between the rhythm and our expectation of it. The brain is “constantly setting up expectations, which include certain anticipations of

rhythm” (ibid). Occasional diversion in otherwise perfect rhythm is what allows the rhythm to enter the consciousness and makes it pleasurable.

Most obvious examples to demonstrate how the synchronization process works are listening to music, military marching, or having sex.

The sensations on the skin during the sexual act are only a means of synchronization, of falling into a common rhythm. The wonder of sex lies in the anticipation of achieving oneness through empathy with the motions of the other – or by varying one’s motions syncopatically in relation to the other’s. One might describe sensuality as such as a particular way of relating to time. Sexual intercourse is actually pure time – time as the sole content of experience, the experience of the rhythm in the brains. (Linke, 2000, p.35)

These facts about the ways the brain works reinforce my theoretical argument about the people’s experiences of the computer mediated communication. In the case of playing video games on the network, computer serves as a synchronizing device. The always present expectation of a particular rhythm of exchange should be met in order for interaction to be perceived as flowing smoothly and be delightful. Network lag lets the expectation down and breaks the pleasure. Interestingly, in case of a solo interaction with computer, a technical accident that delays or distorts feedback (i.e. glitch) is also met with frustration. That is because for the human nervous system it does not matter what the source of the external rhythm is, a machine or another person.

One of the greatest dictators of all times, Joseph Stalin, once observed that in order to exert control over masses it is useful to make all people simultaneously perform an action, preferably – a meaningless one. That is how he came up with the idea of turning the clock for one hour back and forth, twice a year. In this way he both “synchronized” people and reaffirmed his power to make them do pretty much anything. Another obvious example of how synchronizing is taken advantage of would be a rave that is often organized before the military action. In these cases, people are treated like tiny parts of a large mechanism, which should be synchronized in order to work properly.

Virilio draws some scary pictures of the control over and manipulation of mass. They are scary for at least two reasons. First, historically the techniques of mass manipulation have been developed to be used as a weapon: you get the best, most efficient army, if you are able to control the minds of your soldiers, to be in command of their fear and bravery, and to direct them strategically – to their death, if needed. “The individual soul was progressively destroyed to make of it a collective soul” (1991, p. 44). Secondly, such degree of control can be achieved by tampering with human mind through one’s memory and senses. The imposed collective thought aims at “annihilation of originality of sensations” (ibid, p.48), to give one “a memory that would no longer be his own”, and it is partially done by taking away the individual time, the “lively feeling of duration” (ibid, p.42) which is the starting place of unique personal sensations, feelings and memories, and the very source of creativity.

Chapter Summary

The virtual accident expressed as an experiential lag, I argue, is ultimately a social accident. To support the argument I compared lag to the glitch. Moreover, I proposed to consider LAN party as a phenomenon that simultaneously reinforces the capitalist logics and provides the critique of dominant ideology. Comparing LAN parties to the virtual communities, I drew attention to the so-called paradox of the increase in face-to-face interactions that accompanies contemporary processes of communication. Furthermore, it is suggested that LAN parties could be seen as examples of the failure of the project of globalization and as processes that reverse globalization by localizing the activities.

Conclusion: tx-transorm

*Culture is what makes man something other than
an accident of the Universe.*

(Marlaux in Virilio, 2003a, p.27)

Virilio has been often dismissed as an overly pessimistic thinker. Lash calls him “our paradigmatic technophobe, who yet takes a *shaden-freude*-like fascination with technology”; for Virilio postmodern goods are, “inconvertibly, *bads*” (2002, p.55). Pierre Levy finds it “disturbing to discover that the five most recent books by a critical thinker such as Paul Virilio are based on a fantasy, which is shown by a simple observation of the world around us” (2001, p.196). However, when Virilio’s theories are found to predict some of the events of our times, especially after the 9/11, his critics turn to him for analysis and explanation of the events. Virilio puts it rightly: “There are no pessimists; there are only realists and liars” (2003b, p.vii). He argues that so far the subject of the accident has been mistreated in our culture, and sees the scientists responsible for addressing the issue. If we keep silencing this “dark side” of the technical progress, we are facing the danger of the accident of knowledge. “The loss of consciousness of the accident... would amount not just to thoughtlessness, but to madness – the madness of voluntary blindness to the fatal consequences of our actions and inventions” (2003a, p.7).

To discuss the “accident thesis” in this paper I have used the examples so often referred to by Virilio himself. My focus was the recent type of the global accident: the virtual one, which I analyzed on the example of an experiential lag. The classical illustration of the virtual accident, referred to by Virilio, is that of the global stock market crash. Global market is the emergent entity that exists only in interactions between all the market’s participants, and is enabled by information and communication technologies. In

other words, the global market exists in the virtual reality. This feature allows discussing another original example of the computerized environment in which people come together to the same physical space but interact mostly indirectly, by using communication technology – the example of a LAN party.

Global electronic markets and LAN parties, along with numerous other processes that emerged with the globalization, take place in the realm of the virtual reality. However, it is important to recognize that people who participate in these processes are still bounded to concrete localities. Moreover, the virtuality itself is based on material infrastructure and depends on the laws of physics. Therefore, it is necessary to consider both material foundations and social context of these “de-localized” processes.

Virilio expresses a great concern with the subjugating potential of the video games. Importantly, he appreciates that there is more to it than just player’s interest in the game’s narrative. Yes, the virtual worlds offered by the games have the ability to distract the players from the “real” life and compensate for its hardships. Crucially, however, it is not just about the content of the games, but the form in which they are delivered. Virilio corrects famous McLuhan’s formula: “It’s not the *medium* which is the message, but merely the *velocity* of the medium” (2005b, p.141). In the light of this idea the example of LAN parties provides an interesting ground for discussion, since these events are encouraged by the “need for speed” to begin with. In a way, the desire to avoid lag in order to achieve better playing experience can be viewed as the desire to fully “subjugate” oneself. As rightly noticed by Virilio, players “inhabit the accident”, unable to see themselves outside of it.

The accident is inevitable whenever any technology is being used. What would Virilio propose to do in this case? Once we became aware of the “opposite side of progress”, should we abandon use of any technology to minimize the risks? Virilio states that any extreme is dangerous, and that being “anti-technology” will not help. However, becoming a “technological essentialist”, a member of a “cybercult”, is equally frightening. “It is necessary to be an atheist of technology... It is necessary to obey – but also to resist” (1998, p.20).

One of the ways to maintain a critical view of technology is to use it in unintended ways. Such is the example of “foregrounding” in artistic game mods, which reveals the background processes that make the game possible (Galloway 2006). Another example is the use of computer glitches in digital arts (Moradi 2004). Moreover, in the medium of a film the artists take advantage of different editing techniques to manipulate the viewer’s subjective experience of time (Bordwell 2002, Henderson 1976, Tarkovsky 1986). Overall, the viewer develops a relationship with any visual medium through the process of sensory immersion. While immersion is mostly discussed in theory in terms of mental and emotional shift to a different space, I argue it should be viewed in terms of temporal experience of the viewer. Furthermore, immersion is not a continuous process, but fluctuates rhythmically, and therefore the context of viewing is crucial for accommodation and maintaining of immersion (Osborne 2004).

LANs seem to work around the “global delocalization of human activity” (Virilio 1998; Hall 1993; Sassen 2003 and 2004), despite the use of communication technologies. This trait does not help them, however, to avoid an accident. In fact, the opposite is true: LANs expose themselves to the double jeopardy of global and local accidents at the same

time. So, while at the first glance LAN parties seem to be an expression of human desire for social contact in physical proximity, they actually are driven by the aspiration for better experience of virtuality, and remain “trapped” in the inevitability of the accident. Moreover, LANs in fact present example of the accident of globalization, which is a process inherently depending on de-localization and use of communication technology. When technology fails to accommodate the desired expectations, the reversed process begins.

I use the stock market and trading floor cases to illustrate the specificities and challenges of doing qualitative research in computerized environment. However, the comparison between the market and LAN events could be drawn even further. It is known to use the game analogy when it comes to the discussion of market. For example, traders are often called players and sometimes they see themselves as participating in a game; the element of intrinsic unpredictability of the market makes easy to associate it with gambling. Some brokers say that an adrenalin rush and the awareness of competition make them feel as if they participate in physical sports (Hassoun 2002).

At the same time, some studies focus on the phenomenon of file sharing at LANs: high speed of connection allows quick downloading of large files, i.e. movies (Fetscherin et al. 2005). Part of the people attending LANs do not come there to play: their main motive is to download as many files as possible (usually, while allowing others to upload files from their computers in exchange). So, some trading takes place at LANs as well, including incidents of ‘piracy’, or free-riding. Swalwell mentions that LANs have gift-economy origins (2004, p.1). However, the presence of sponsoring companies who give away thousands of dollars in prizes at some large LAN parties, and the monetary benefits

provided for the winners of official tournaments might affect the gamers' motives for participation. Once the money gets involved, the whole perspective on planning existing "for the sake of gaming" should be reviewed.

Once we stop pretending accidents are rare and unpredictable, and therefore are not worth much attention, we can deal with them. Moreover, keeping in mind that the accidents are always parallel to any invention, creation, and progress, we can try to assess the risks at the moment of conception.

Planning, engineering and design are still mostly directed at the construction of safe and predictable things, while a new school of engineering is increasingly looking at ways of incorporating possible malfunctions into the planning process, and to use the accidental potential of products for enhancing their performance.

(DEAF, 1998, introduction)

Virilio also insists that "the accident is part of the production process. Causing accidents results in the amelioration of the production of substance. Hence the accident is an element of rationality" (2000, p.2).

Most importantly, taking accidents into consideration will force us to look at the fields of genetic engineering and biotechnology. Even LAN parties might provide some examples of the "biological bomb" at work. Consider the fact that among the largest sponsors of LANs are companies producing so-called energy drinks: "Bawls" and "Red Bull". Until recently, the drinks only came in the average beer-bottle size, so, the observer might think that players satisfy their thirst while consuming a huge dosage of

caffeine these drinks contain. Now, however, there is a new product on the market, which immediately gained popularity among the lanners: so called “shots”. These are tiny in volume, and still contain the same amount of caffeine as regular bottles. So, the idea of this being just a drink does not work anymore. The truth is out: lanners get the shots of energy to keep up with the tireless machines. According to Virilio, current advancements in biological science will eventually expose us to the accidents of the scale we have not known before, but these have not been the focus of this paper.

Also left unconsidered, although present in his work, the philosophical dimension of Virilio’s ideas, where he reflects on the notion of responsibility of scientists and creators, as well as on agency of the users. Most crucial for Virilio is the fact that our very thinking seems to be hindered by the race for speed.

Instead of having more time for ourselves with help of the tools we created, we end up being slaves of the machines. As a result, we rush to follow the schedules and to meet the dead-lines, and live more superficial lives.

Time for reflection isn’t wasted time; it’s critically important for our well-being. It’s time on the sofa just thinking, time out walking, or it’s the five minutes or so waiting for the bus when there’s nothing else to do – and you don’t just get your mobile out and start texting. During reflective time we are turned in on ourselves. It’s a state of mind where unexpected thoughts can well up from the subconscious and surprise and delight us. (Goodman & Jorgensen, 2005, p.136)

Following the machine pace is *dehumanizing*, because it is a major human characteristic to reflect, think, create and express personal agency (ibid). Lag, as well as other accidents, is always about a break in routine (i.e. temporal routine), therefore – it is instrumental in “re-humanizing” the people (i.e. making them re-think, re-adjust, re-create). This is something Virilio is saying as well:

In my view, the accident is positive. Why? Because it reveals something important that we would not otherwise be able to perceive. In this respect, it is a profane miracle. (2005, p.63)

It is doubtful that the whole Western culture will turn on itself and reconsider its relationship with time. Most probably, we will still be rushing to fill the “empty” time with “stuff”. However, I would like to believe that new and unexpected solutions will come from the area of art. As a concluding illustration of such development: a case of *tx-transform* (see Figures 12 and 13).

tx-transform is a new film technique which transposes the time axis (t) and the space axis (x) in film... Each frame shows the entire period of time but only a tiny portion of the space... These “space cuts” through the “information block” produce a series of astounding visual effects: houses start to move, heads grow out of themselves, moving trains become shorter and shorter as their speed increases. (Reinhard & Widrich, 2000, p.28)



Figure 12

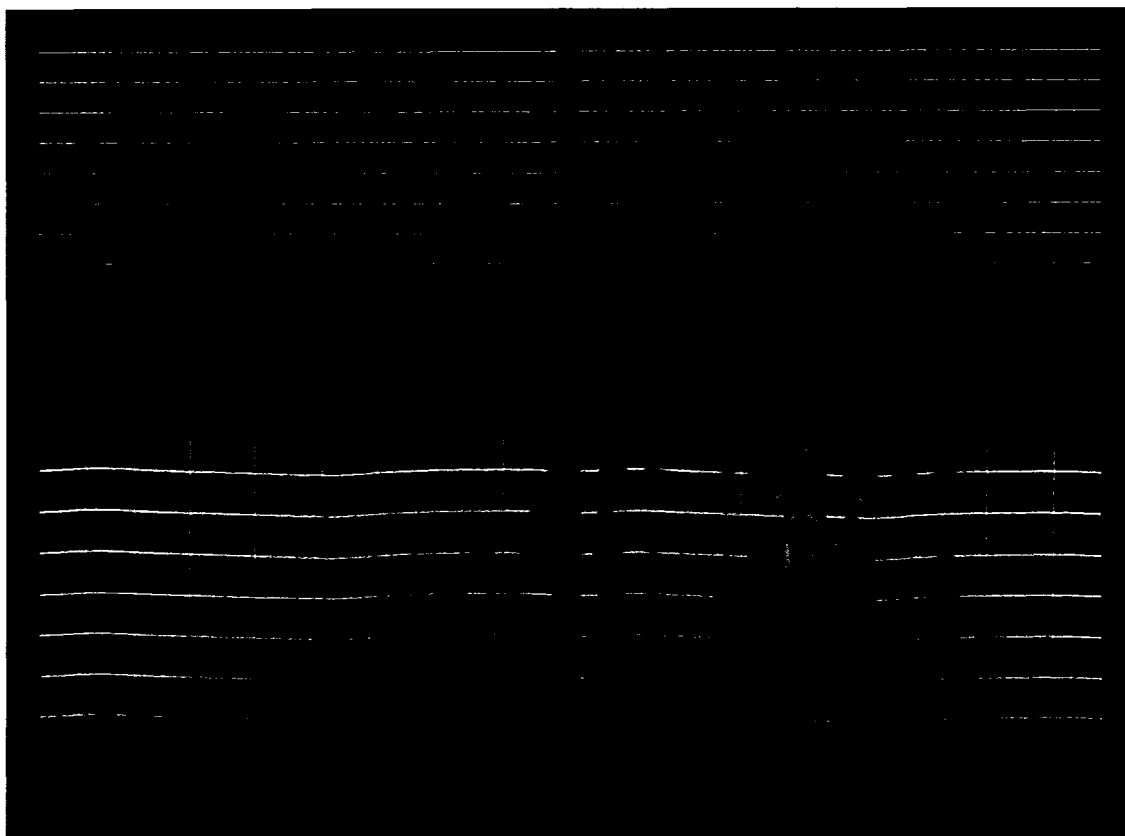


Figure 13

Remarkably, the images created using this technique remind of the works of Duchamp: probably, that is the effect he wanted to achieve in his paintings, presenting all “space cuts” across one moment in time. Hopefully, instead of inhabiting its own accident and playing with distortions of its very structure over and over again, art will eventually be able to see itself from outside. Perhaps, it is all just a matter of change in

perspective, and *tx-transform* is just one example of how rather than simulating another world, we can look in a different way at ours. Most of all, I hope this new vision will not remain a privilege of art.

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[bin/webadmin?A1=ind0707&L=FILM-PHILOSOPHY&D=0&F=P&H=1&I=-3&O=D&T=0](http://www.jiscmail.ac.uk/cgi-bin/webadmin?A1=ind0707&L=FILM-PHILOSOPHY&D=0&F=P&H=1&I=-3&O=D&T=0)

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