

Jaakko Kemppainen
Independent games

What they are and are they different

Master's thesis
Digital Culture
20.2.2008

Jyväskylä University

Department of Art and Culture Studies

Jyväskylä

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Faculty of Humanities	Laitos – Department Department of Art and Culture Studies
Tekijä – Author Jaakko Kemppainen	
Työn nimi – Title Independent games What they are and are they different	
Oppiaine – Subject Digital Culture	Työn laji – Level Master's thesis
Aika – Month and year February 2008	Sivumäärä – Number of pages 98 p. + Appendices 18 p.
Tiivistelmä – Abstract <p>This research figures out, how the concept of independent games and independent game production is understood in the field of game industry. Some comparisons are made to music and movie industry, using literature and different internet sources to find out commonly used definitions for independent concept on different areas of entertainment business. Three level definition for independent productions is formed, mainly from the commerce point of view - independent, semi-independent and non-independent games and producers.</p> <p>Second part of this research is a quantitative genre comparison between non-independent games and independent games. For the use of the genre research, a study of game genres is made and basen on that, a game genre systemi is produced. Main finding of the quantitative research is, that independent game genre distribution is different in the case of non-independent games, but there are a lot of similarities within both non-independent and independent games genre division.</p>	
Asiasanat – Keywords independent games, game genres, game studies, ludology	
Säilytyspaikka – Depository University of Jyväskylä	
Muita tietoja – Additional information	

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Humanistinen tiedekunta	Laitos – Department Taiteiden ja kulttuurin tutkimuksen laitos
Tekijä – Author Jaakko Kemppainen	
Työn nimi – Title Independent games What they are and are they different	
Oppiaine – Subject Digitaalinen kulttuuri	Työn laji – Level Pro Gradu -tutkielma
Aika – Month and year Helmikuu 2008	Sivumäärä – Number of pages 98 s. + liitteet 18 s.
Tiivistelmä – Abstract <p>Tämä tutkimus selvittää, kuinka "independent" pelien ja riippumattomien pelituotantojen käsite ymmärretään peliteollisuuden piirissä. Joitakin vertailuja peliteollisuuden ja musiikki- ja elokuvateollisuuden välillä tehdään, käyttäen kirjallisuutta ja erinäisiä internet-lähteitä, jotta yleisesti käytetyt independent-tuotannon määritelmät saadaan selville viihdeteollisuuden eri osa-alueilla. Tämän osion lopputuloksena on kolmiportainen määritelmä independent peleille ja -tuotannoille - enimmäkseen kaupallisesta näkökulmasta katsottuna: riippumattomat, puoliriippumattomat ja ei-riippuvat pelit ja tuotannot.</p> <p>Tutkimuksen toinen osa on kvantitatiivinen genrevertailu riippumattomien ja ei-riippumattomien pelien välillä. Genrevertailua varten tehdään määrittelevä tutkimus peligenreistä. Tutkimuksen tuottamaa genremääritelmää käytetään hyväksi pelien luokittelussa. Pääasiallinen tulos kvantitatiivisesta tutkimuksesta osoittaa, että independent-pelien genrejakauma eroaa ei-independent pelien jakaumasta, mutta molempien lajien sisällä genrejakaumat ovat hyvin samankaltaisia.</p>	
Asiasanat – Keywords independent pelit, peligenret, pelitutkimus, ludologia	
Säilytyspaikka – Depository Jyväskylän Yliopisto	
Muita tietoja – Additional information	

Table of Contents

1. Introduction.....	4
1.1. Background.....	4
1.2. Previous work on game research	5
1.3. About the methods and the structure of the research.....	6
2. Meaning of independent.....	8
2.1. Independent in gaming world.....	9
2.1.1. Independent Games Festival.....	9
2.1.2. Gametunnel.com.....	11
2.1.3. Manifesto Games.....	13
2.1.4. Eric Zimmerman on independent games.....	14
2.1.5. Independent game sites.....	15
2.1.6. Other independent game -related instances.....	16
2.2. Independent cinema and music.....	17
2.2.1. independent film festivals.....	17
2.2.2. independent in film studies.....	18
2.2.3. About differences and commonalities between independent movies and games.....	20
2.2.4. Independent music.....	21
2.3. Government funding.....	23
2.4. Special features of independent game production.....	24
2.4.1. Game development competitions.....	24
2.4.2. Schools and brainstorm-sessions.....	25
2.4.3. Political games.....	26
2.4.4. Games as art.....	28
2.4.5. Hacker ethic.....	31
2.4.6. Distribution channels.....	33
2.5. Conclusions on independent definitions.....	35
3. Game genres.....	38
3.1. About non-genre game type divisions.....	38
3.2. Game genres in Wikipedia.....	39

3.3. Genres used in researched services.....	41
3.4. Mark P.J. Wolf's 42 genres.....	42
3.5. Chris Crawford's taxonomy.....	43
3.6. Espen Aarseth's Multidimensional typology of games.....	44
3.7. Genre synthesis of Aki Järvinen.....	46
3.8. All Game Guides genre list.....	47
3.9. Genre synthesis.....	48
3.10. Most common genres and their features.....	51
4. Comparative game genre research.....	59
4.1. Games in Pelit-magazine.....	60
4.1.1. Platforms and games.....	60
4.1.2. Genre division of reviewed games.....	61
4.1.3 Additional notes about Pelit-magazines material.....	64
4.2. Suomipelit.com.....	65
4.2.1 Genres of Suomipelit.com.....	65
4.2.2. Notes on Suomipelit.com's games.....	69
4.3. Gametunnel.....	70
4.3.1. Genres of games in Gametunnel.....	71
4.3.2. Notes on Gametunnel's games.....	74
4.4. Flash-game.net.....	75
4.4.1. Genres of Flash-game.net.....	76
4.4.2. Notes on Flash-game.net's games.....	78
4.4.3. Specialties of browser games.....	79
4.5. Summary.....	81
4.6. Discussion on genre comparison.....	83
5. Conclusions.....	86
6. Ideas for further research.....	90
References.....	91
Appendices.....	101
Appendix 1: E-mail interview with Greg Costikyan.....	101
Appendix 2: All Game Guide's genre listing.....	104
Appendix 3: Terminology and definitions.....	105

Appendix 4: Development budgets and times of IGF finalists.....	107
Appendix 5: Games of quantitative research.....	108
Pelit-magazine.....	108
Suomipelit.com.....	111
Gametunnel.....	113
Flash-game.net.....	117

1. Introduction

The main goal of this research is to find out how the concept of independent production is understood in the computer game business and culture. One way to categorize games by their independent qualities is produced. Special features of independent games and game productions are examined. The differences between independent and other games are examined through game genres and distribution of various games in these genres. A game genre definition used in this part is generated by examining commonly used game genres and various academic works.

1.1. Background

Independent games and producers have risen to one of the most discussed topics in gaming industry during last couple of years. Game designers and developers are getting frustrated on constantly rising developing costs of games and industry's strive to "ensured profit" caused by the costs. Approximately nine computer games out of ten fails commercially, while the rest ten percent of games make so good profit they can cover the losses from the other games.

One of the effects caused by "ensured profit" thinking is that commercial games seem to be stuck on familiar and "safe" game genres and series. On the launch of Microsoft's X-Box 360 console in December 2005, 11 out of 15 available games were sequels or yearly updates of older games. The rise of development costs caused by new features of new console generation, and the compulsory utilization of the new technology has made some analysts and columnists to predict the death of gaming industry. It might be relevant to ask if the gamers want the games to look fancier and more realistic, or is it just the gaming and hardware industry, who want to produce new, more beautiful and more expensive games. Many people make their game purchase decisions based on screenshots and game packaging, so better visuals create more sales.

Some people think that independent games are a good counter force for the megalomaniac commercial game development and its problems. Independent games are thought to have innovative ideas and courage to try new concepts. Smaller developing costs reduces the risks, so developers can try out wilder ideas and aim at more creative gaming experiences. At least Greg Costikyan (1994) and some other central figures of gaming industry spoke out their opinions about the situation of the gaming industry in a rant in Game Developer Conference 2005 (Taylor, 2005).

During the time of this research, new sites and articles related to independent games and independent game development were published on accelerating pace. Gaming and game industry magazines published many columns and articles of the independent game producers on the gaming industry. Many sites offering downloadable and web browser based games were established. International Game Developers Association formed a Casual Games Special Interest Group in July 2005, which means more attention to casual games. Casual games may be one of the most important target groups of independent development, since the needs of casual gamers meet very well with what independent games have to offer.

1.2. Previous work on game research

Game research, or ludology is relatively young branch of study. There are many ethnographic studies mentioning the games played by e.g. North-American natives or Carelians, but the nature of play and games have been researched only for very short time. The basics for ludological research was written by Johan Huizinga in his book *Homo Ludens* (1938), where the writer processes the concepts of play and games on very basic level. The other foot of games research is Roger Caillois' *Man, Play and Games* (1957), in which Caillois does some classifications of games and tries to define the concept of game. Note that these books were written before the age of computer games.

Research on computer games has grown relatively popular in the beginning of new millennium. There are plenty of writings about the history of video games (e.g. Kent, 2001). The psychological effects of games on children and the violent behavior affected by games are also very popular topics on game research (Swanson & Uhlmann, 2004). Since playing games is slowly catching movies as a form of leisure, the cultural aspects have also been under discussion (e.g. Herz, 1997; Poole, 2000).

People are always interested in money and commerce. There are several writings about the games as business (e.g. Eskelinen, 2005), and some concerning the virtual economies of massive multiplayer on-line worlds (e.g. Castronova, 2003). Of course, games need to be made, thus game design has been a serious topic for a while and some good books have been written about it (e.g. Crawford, 1982; Salen & Zimmerman, 2003). Many of the essential texts of game studies are collected into anthologies (e.g. Wolf & Perron, 2003; Salen, 2005). There are also a few Finnish anthologies of game research (e.g. Huhtamo & Kangas, 2002; Kankaanranta & Neittaanmäki & Häkkinen, 2004).

Electronic games and game research are slowly gaining larger attention, while more and more people use or have grown up with game consoles and computers. During the 30 year history of video games, the games have grown from small experiments via play and hobby of geeks to mass markets and popular culture. The amount of money in game business inspires developers and researchers. Most of the writings consider the big and expensive games and mass markets. Hobbyists, amateurs and small companies in game industry are left without thorough observation. This study examines this small, but innovative group making games for small, but interested audience.

1.3. About the methods and the structure of the research

This research is divided into three parts. First part (chapter 2) is about the concept of independent games and independent game development. Definitions and discussions

about independent games and development are overhauled as a literature survey. The independent as concept is also studied from the movie industry's point of view, accompanied by music industry and culture. These points of view are used to produce one possible definition for independent games and independent game developers. Additionally a look is taken at some special features of the independent game development culture.

In chapter three the ideas of genre are being handled. First, different genre definitions and listings are examined. This research is done using mostly academic writings about the genres and genre theory, but also commonly used definitions and sources are being used as heuristic sources. These theories and genre listings are used to produce a computer game genre division for the use of this research. The concluding genre division is based on commonly used game genres and it is supported by academic research.

Thus formed genre classification is used in chapter four, where various different independent game sites and suppliers are examined and a genre based division of the games they offer is made. This distribution is compared to a group of games collected from the reviews in a Finnish computer and console game magazine *Pelit*. These games are thought to represent rather well the mainstream games found in retail stores during the examination period. The mainstream is often described as opposite of independent, as is found out in Chapter 2.

This research is partly a conceptual examination of independent games and independent game development, based on literature and articles. A literature and article research is also used to produce the genre definitions. The genre distribution of the games is a quantitative research, even though some thoughts about accuracy of the genre definitions are to be considered.

2. Meaning of independent

Independent could be defined as in WordNet-dictionary (2007):

Noun

S: (n) mugwump, independent, fencesitter (a neutral or uncommitted person (especially in politics))

S: (n) freelance, independent, self-employed person (a writer or artist who sells services to different employers without a long-term contract with any of them)

Adjective

S: (adj) independent (free from external control and constraint) "an independent mind"; "a series of independent judgments"; "fiercely independent individualism"; "an independent republic"

S: (adj) independent (not dependent on or conditioned by or relative to anything else)

S: (adj) autonomous, independent, self-governing, sovereign ((of political bodies) not controlled by outside forces) "an autonomous judiciary"; "a sovereign state"

S: (adj) independent (not contingent)

S: (adj) independent, main ((of a clause) capable of standing syntactically alone as a complete sentence) "the main (or independent) clause in a complex sentence has at least a subject and a verb"

S: (adj) independent (not controlled by a party or interest group)

Independent could be understood as not dependent on something, autonomous from anything or not controlled by any interest group. This chapter explains how the actors in the gaming scene do understand the concept of independent or indie. A look towards cinema and music world is taken to get material for comparison. In the end a summary of the definitions is made and it is used to form one possible viewpoint to the understanding of independent games and productions.

2.1. Independent in gaming world

Independent game or producer seems to be rather developer-based term. Game players do not really much care, how independent the producer of their favorite game is. When asked, players could not necessary even understand the whole concept of independent games. For game players the funniness and entertainment values of the game seems to be more important than it's production politics, even though players can recognise an indie-spirited game as “something different” or original. Some players may even think that independent games are some kind of cross-platform games, which work on many different hardware and operation systems.

Amongst developers, the idea of independent games and producers is understood much better. Maybe this is because of interest towards the gaming industry and business, and through this, an experience on browser games and other small or hobby projects. These games can be used to find some inspiration, new ideas and fresh implementations, during a small relaxing break between a busy day. Game industry professionals could be thought to have a better understanding on the processes and requirements of different game productions.

During free discussions with game makers and other people connected to games, many people have defined independent games as games approved to contribute in Independent Games Festival. Further conversations revealed ignorance about the criteria of getting approved to the festival, so the people had formed their opinion basing only on the name of the festival.

2.1.1. Independent Games Festival

Independent Games Festival is the largest independent game show and competition in the world. According to its own words, it wants to do the same to the independent

games, as the Sundance Festival has done to the independent cinema. Independent Games Festival (a.k.a. IGF) is arranged annually since 1998 and it has helped many developers and games to the awareness of greater audiences. Some attendants have even got distribution deals because of competition success. IGF is one of the best known, if not the best known independent gaming related forum and it has quite good visibility through the gaming media.

The competition now days has three categories: main competition, game modification and a student showcase category. In the past, the categories were open, web/downloadable and student showcase. Around a hundred games attend the competition each year and the amount is rising, even though there is quite lot of variance between the years.

Independent Games Festival does not set any budget or other resource limits for the attendants. The budgets of the winning games have varied from \$0 to over a million dollars, while the median has been around \$20 000 – 30 000. The development times of the winning games have also varied from below a month to nine years. (Appendix 4). These figures could be understood as the independent sector giving more value to the good concept and idea than to massive production value, animation, graphics and sounds – which consume most of the developing resources in modern game productions (Costikyan, 2005).

The Independent Games Festival restricts the attendance to the competition by following rules (IGF, 2005):

Ineligible Publishers: Only unpublished and self-published games (i.e., a game published by an individual or company whose primary business is game development as opposed to commercial game publishing) are eligible to be entered in the Contest. Games that have been funded by, or that are affiliated with, an "Ineligible Publisher" are not eligible for entry. An "Ineligible Publisher" is any firm that is a member of the Entertainment Software Association (ESA) and/or the Entertainment and Leisure Software Publishers Association (ELSPA), including any parent or subsidiary of any member firm.

Derivatives: Unpublished or self-published games that are derivatives of games previously released by an Ineligible Publisher are not eligible for entry in the Contest (e.g., a game that was previously published by an Ineligible Publisher that has been re-issued as a

"special edition" with or without the backing of a publisher is not eligible.)

Use of Third Party Technology: Games that make use of third party game engines, middleware, or other software or technology are only eligible if the Entrant has all necessary rights to commercially publish the game. For instance, if an Entrant does not have full legal rights to commercially release a game using the Quake III engine, that game is not eligible for the Contest.

Rights: Before submitting an Entered Game, the Entrant must have obtained the written permission of all persons or entities having any rights in the Entered Game.

Updates: Entered Game updates are permitted during the Nominating Period. Each single-player, CD-based Entered Game should include an automatic patching system built into the Entered Game. For any online Entered Game or multiplayer CD-based Entered Game, the Entrant should submit ongoing upgrades to the Entered Game on the applicable server, or by pushing patches to the client upon player login to the lobby area of the Entered Game.

Last four rules are rather obvious for any competition of intellectual property. When looking at the members of ELSPA and ESA, which are restricted in the first rule, it can be found out that besides the biggest actors in the electronic game industry, as Electronic Arts, Microsoft, Sony and Acclaim, also some universities are closed out of the competition (ELSPA, 2006, ESA, 2006). So, games produced by Salford University are closed out of the competition, but Jyväskylä University produced games could participate. Roles of developer, publisher and distributor are discussed more thoroughly in chapter 2.4.6.

2.1.2. Gametunnel.com

Gametunnel is a gaming site specialized on independent games (Gametunnel, 2007). It reviews independent games and annually the reviewers and columnists choose and reward the best independent games of the year. The site also publishes columns and articles concerning independent games, their development and the culture and lifestyle around independent games. The best independent game award is somewhat respected nomination, which is widely used in the marketing of the award-winning games, for example in (Chroniclogic, 2006) and (Mönkkönen, 2006).

In Gametunnel's articles, the independent game scene is distributed in three categories: indies, hobbyists and entrepreneurs. Hobbyists are not so concerned about the finalized products, but are more interested in working with challenging programming problems in interesting projects. Entrepreneurs are ready to catch whatever business, in which they can see a possibility to make some money. Dan MacDonald, who is a volunteer product owner of Torque SDK game engine and columnist for GameTunnel, defines independents as product-oriented developers, which have an urge to finish their game project instead of just producing another technology demo or impressive solution to some problem (MacDonald, 2005a).

In another article, MacDonald talks about "indie-ideal", referring to conversation about the nature of independent game production carried out in indiegamer.com-forum. In the conversation, the administrator of TIGSource-site defines independent production as something that gives a personal satisfaction to the subject – no matter of what kind of art is been thought. Real independence means that one can do things that she feels interesting and entertaining. This is thought as a hard task to achieve, especially if the game should not only be finished, but also got sold. In the end of the column MacDonald hopes that independent producers should produce more games that respect the 'indie spirit'. (MacDonald, 2005b).

MacDonald's indie-ideal reminds the movie and music industry's vision of independent as an stylistic or aesthetic matter. The column mentioned before also handles the relation between passion and productivity, which is closely related to the idea of happiness in hacker ethics ($h=f^3$: happiness equals to food, friends and fun). It says that the happiness of a man depends only from the satisfaction of the basic needs (food), good and inspiring company (friends) and satisfying one's personal passions (fun) (Himanen, 2001, p. 55).

In Game Developer Conference's panel discussion in 2005, Greg Costikyan, asked the audience, how many of them was working in the gaming business just for money, and how many was there because they loved games. Only one of the hundreds of attendants

raised their hand for the paycheck, while all the others claimed to be on the business just for fun (Taylor, 2005). The seminar was about ranting against ever growing non-innovativeness and self copying of game industry, so the audience probably was willing to hear thoughts like that and respond to them rather radically.

2.1.3. Manifesto Games

Manifesto Games is a company founded for the independent developers offering them a distribution channel for their games. The company is founded by Johnny L. Wilson and Greg Costikyan, who is one of the most loudspeaking spokesmen of independent games. Costikyan has designed over 30 commercial games and written numerous articles about games and game industry. In an e-mail interview, Costikyan says the gaming industry commonly speaks about independent producers as companies, which are not owned by a game publisher. His own vision of independent producers is much narrower. Costikyan excludes game production companies whose production resources are on an equal level to the big publishers and their production teams (Appendix 1).

Costikyan emphasizes the difference between independent and casual games. Casual games are designed for people who play randomly and short periods a time. Games are easy to understand and play and they have no difficult or complex mechanics or plots. Independent games can have complex game mechanics and they can also have confusing plots. Gameplay and user interface are often unpolished, so the games are difficult to approach and play. When talking about indie spirit, independent games can be very avantgardist, while casual games resemble Hollywood movies with invisible editing and familiar basic stories.

Costikyan too calls for indie spirit and stylistic innovations. In his opinion, the producer's risk handling weakens when the development budgets grow and this leads to problem of sequels and safe game types, as seen amongst big productions. Costikyan sees the independent games as a savior of the gaming industry, but on the casual games

he takes rather negative attitude. He says most of the casual games are stuck on “match 3”-like puzzle genres and do not really bring anything new to the games. (Appendix 1).

2.1.4. Eric Zimmerman on independent games

In an essay “Do Independent Games Exist?”, Eric Zimmerman writes about the existence and nature of independent games. He asks, if such thing as independent games exist and answers to his own question by offering pros and cons for the phenomenon. In the beginning, Zimmerman approaches the concept of independent from a movie industry's viewpoint. Independence can be defined as follows (Zimmerman, 2002):

1. Independence from finance: where the money for the production, distribution and marketing come from.
2. Independence of the media itself. The length or budget of a movie can define the production independent.
3. The spirit and culture of the film. This is kind of grey area, where many definitions and definition makers of independent movies are being drifted. “You know an indie when you see one.”

Zimmerman's first point has a strong correlation with the idea of independent in other gaming industry related sources. Second point reminds about Marshall McLuhan's thought “a media is a message”. Originally McLuhan's thought meant a kind of remediation, where an old media (e.g. cinema) becomes a message of a new media (e.g. movie shown on TV). (McLuhan, 1969, 27-29). If understood in a new way, this means that a media itself can function as a validator for the message and this way it can be a message itself. So, the length of a movie or the distribution channel of a game can participate in the independent validation of the message (film or game). For example, a browser based webgame or downloadable freeware game can be recognized as independent according on distribution channel. In this sense, the demos of the

commercial games differ from the shareware or freeware games, because the end product must be purchased from a retail store. The demo version is the same for the game, as a trailer is for a movie.

Related to the discussion about the distribution channel, game company Valve brought its own distribution service, Steam, on the internet during the release of *Half-Life 2* game. In the future, all the games produced by Valve can be achieved by downloading them through the Steam service. By this Valve tries to get rid of unnecessary actors between the game producer and the player. The massive production of *Half-Life 2* does not seem to fit into the independent spirit. Even though Valve has production resources far superior to most independent producers, the distribution channel is exactly where Manifesto Games is aiming on their idea to distribute independent games over the internet.

In the third point, Zimmerman writes about the same indie spirit, which Costikyan and MacDonald demand to the game business. In the later monologue Zimmerman rises thoughts about games made by hardcore-gamers for hardcore-gamers, hit-driven productions (this was against independent games) and about many of the greatest hit games of all time as marginal products of their time (pro independent). (Zimmerman, 2002). Also Costikyan has spoken about exactly these same aspects, even though in his opinion the hit-driven industry of big companies and the innovativeness and creativity of the independents and hobbyists are the strongest pros of independent games (Appendix 1).

2.1.5. Independent game sites

Amongst the sites used as sources for the quantitative part of this research, suomipelit.com and flash-game.net do not define themselves as services for independent producers. Thus they do not define the independent games or independent game productions in any way. Those particular sites are chosen to the research because of the

games they deliver. Suomipelit.com offers a view to Finnish shareware and freeware games (and a couple of demos of retail-store games). Flash-game.net on its behalf offers a sneak peek to the world of browser games, which are seen very important branch of the casual game business. The third site used in the quantitative genre part of this research is Gametunnel.net, which is discussed earlier.

Madmonkey.net independent game site defines independent producers as ones not depending on big companies or external funding. The site mentions that the lack of external funding does not necessary be a creativity restricting factor, but rather an enabling one. External profit pressures can not affect on independent game producer's interests, so independent games very often deliver us new and interesting ideas (MadMonkey, 2006). Madmonkey.net shares the opinion of MacDonald and TIGSource's administrator of freedom made possible by independency.

2.1.6. Other independent game -related instances

International Game Developers Association (IGDA) has founded a special interest group, which has a focus on independent games and production. Indie SIG defines term independent as “Not having any formal relationship with a publisher” (Indie-SIG, 2006). This is very strict interpretation of independent, as it excludes every producer, whose games have hit retail stores or made distribution deal, but also small game houses, which work as subcontractors for bigger companies, or try to find a publisher or distributor for their games through larger companies.

The Independent Games Developers Association (TIGA) defines it's purpose as “*to keep developers in the UK and Europe at the heart of the global Games industry, by ensuring that the business environment in the games industry is favourable.*” According to TIGA, about half of the British game developers work on independent games sector. In whole Europe, the amount is even bigger. (TIGA, 2006). The association does not make any kind of excluding border around its members. The TIGA members include

small game developers, as well as huge companies like Sony, Nokia and Microsoft. One of TIGA's aims is to get independent game studios together with bigger publishers in the hope for subcontracts and co-operation. (TIGA, 2006). This is in conflict with Costikyan's thoughts of independent developers working as subcontractors (Costikyan, Appendix 1). The TIGA vision is more business and money driven, than most of the other independent game business actors.

Indie Game Jam is a gathering of game programmers, where professional game developers make a game prototype based on a given game engine core. The time is limited to a couple of days and the theme of games is also given and it is related on the functionality of the given core. The event is meant to encourage game developers to explore and innovate during the game design.(IGJ, 2006). The Game Jam does not define independent games at all, but the spirit of the happening is really close to Costikyan's and MacDonald's thoughts of indie spirit. There is also strong feeling of hacker ethics, since all the attendants are volunteers and doing it just for fun and entertainment.

2.2. Independent cinema and music

Independent cinema is commonly understood as a style or the spirit of the cinema, rather than financial aspect. Many Hollywood movies have the indie spirit, but the budget or production of the movies does not necessary meet the financial or other autonomous requirements for the independent production. Many sources mention independent as a movie genre and it is often counted as a sub-genre of “art-movies”.

2.2.1. independent film festivals

Sundance Film Festival is one of the most well known independent movie festivals. During festival's 25 years of existence, many remarkable movie makers have risen to

common awareness via festival success – including Steven Soderbergh and Quentin Tarantino. There are no financial or production related restrictions on the films attending to the competition of the festival. Only restricted aspect is viewings of the film on TV or at other festivals. The finalists are chosen by a jury, which emphasizes the indie spirit and atmosphere of the film. (Sundance, 2006).

Sundance is not the only indie-festival that relies on the authority of the jury. After checking over ten independent film festivals, the only one to set some financial restrictions on the attending films was Zion Independent Film Festival (ZIFF) (ZIFF, 2005). It could be possible that other festivals have some restrictions on financial or production aspects, but they are not told at the registration to the festivals. British Independent Film Awards (BIFA) has a rule, that the nominees for the award can not be completely funded by a single studio. Because it is a British national award, there are restrictions for the nationality of finance and creative force. (BIFA, 2005).

2.2.2. independent in film studies

Hillier writes in *American Independent Cinema* (Hillier, 2001, ix) as follows:

“Although American independent cinema has a relatively specific meaning – as much to do with economics as with aesthetics – with this relatively short period, it is a loose, slippery label. Historically 'independent' has always implied work different from the dominant or mainstream, whether this relationship is defined primarily in economic terms (production and distribution) or in aesthetic or stylistic terms.”

Hillier emphasizes the non-mainstream aspect of independent productions. This is quite common opinion in many other media examined in this research. This actually brings out a question about the relation of mainstream and independent. These definitions always put pressure on the idea that something produced with less money or with non-conventional aesthetics are not accepted or consumed by the largest part of the audience. Or vice versa, mainstream productions are always produced by larger studios or with external funding and they implement conventional film aesthetics.

According to Greg Merrit, independent movies are constantly talked about, but the term independent has been defined only rarely. Merrit gets to the problem with an example of *Titanic* (budget 200 million dollars) and *David Holzman's Diary* (budget 2500 dollars from the producers own pocket). First is definitely very dependent on funding from two major studios, while the second is completely created and distributed without any participation of any studios. Between these two extremes, there are at least thousands of movies, of which independence can be argued. (Merrit, 2000, p. XI).

Merrit divides the movies into three categories according to their level of independence. Completely **independent** movies are funded and produced totally without any help or financing of studios of any size. These movies do not have distribution contracts made in advance, before the movie is completed. Of course these movies can be sold for distribution after completion. **Semi-independent** movies are not directly produced for certain big studio, but they have a distribution contract in advance. Additionally, the movie can be produced by some smaller studio, for example Miramax or Gramercy. Movies which do not fall into these categories are considered as non-independent, or in the Hillier's spirit, mainstream. (ibid.).

Also Merrit writes about the movie industry's attitude towards the independent cinema; "I know it when I see it" (ibid.). This tells about traditional, towards the form, style or content aiming "indie-feeling", by which most independent film festivals and competitions choose their nominees. Merrit uses movies *Fargo* and *Forrest Gump* as examples to contradict the choosing by indie spirit. *Fargo* is semi-independent production, which has gained its indie imago because of its style and content. *Forrest Gump* is produced by a large studio, but its content is much more indie-spirited than *Fargo's*. Despite of that, *Forrest Gump* is not really thought as independent film. (ibid.).

In Wikipedia, independent movie is defined as "a film initially produced without financing or distribution from a major movie studio" (Wikipedia, "Independent film"). The text claims that films funded by major studios by a portion of less than half are often considered as independent. In the movie business, there are six large studios,

which are considered as the big producers that can not be count as independent or semi-independent. These “big six” are 20th Century Fox, Paramount Pictures, Sony Pictures Entertainment, NBC Universal Entertainment, Warner Bros. Entertainment and Buena Vista Motion Pictures Group (also known as a part of Disney corporation). (e.g. Wikipedia, “Independent music”; Epstein, 2005). There is no mention of style or indie spirit in this Wikipedia article. Because of ever evolving and unstable nature of Wikipedia, there may be new or deprecated articles about independent films, which look at the phenomenon from a different point of view.

2.2.3. About differences and commonalities between independent movies and games

The relatively small budgets of independent movies affect certainly on the form and content of the film (e.g. Lumet, 2004). The manuscripts have to be written so that they can be filmed in the budget limits. Shooting time and expenses can be cut down by avoiding or removing some camera angles, cuts, special effects and dangerous takes. Commonly cited example from Alec Baldwin in *David Letterman show* in November 2003 (e.g. Wikipedia, “Independent film”):

The scene "Amy opens the window" takes half a day and perhaps ten shots in a big studio production:

Amy walks to the window,

Window itself,

Amy touching the handle,

shot from outside the window, etc.

For independent film makers, that scene is one shot, and done before 9 a.m.

On the other hand, many independent movies focus on cheap special effects galore. This is very common among “splatter” films, which is rather common sub-genre of hobbyist

made horror movies. Usually these effects bite the budget so badly, there has to be some savings made in e.g. length of the movie, lights or actors. *Star Wreck: in the Pirkinning* is a very rare special case of long and relatively well produced independent film with massive amount of quality special effects. The money is substituted with working time in the production of *Star Wreck*. The film production took seven years of the makers' free time and the budget of the film was about 13000 euros.

There is same kind of focusing on one aspect in the independent game productions. Sometimes the visual outfit have been left minimal, thus the developers could be able to focus on technological or content developing. This does not necessary mean bad graphics or dull sounds, but rather a lack of cut scenes and other little details. For example, *Timehunt*-puzzle game - Top Talent Award winner for unbelievable amount of content in 2003, had very functional and nice graphics, but lacks on animations and movement when compared to almost any non-independent game. Independent games can be seen as game industry's short films. They distill only the essential core of the game to an piece of artwork that most of the gamers don't even know existing.

Some other games are focusing on pleasant audiovisual outfit, while the actual content can remain very shallow or empty. Modern scrolling shooters are typical examples of this kind of games. Visual effects and beautifully rendered environments can become the beef of some productions. Only really enthusiastic production team can possibly create good technology, nice outfit and quantities of quality content without external funding – even though examples of this can be found.

2.2.4. Independent music

Independent music is often seen some kind of guitar-lead sub-genre of rock music. On the other hand, independent music is also described as different from mainstream music, no matter if the point of view was stylistic or financial/productional. This is well in line with Hillier's opinion in American Independent Cinema discussed earlier (Hillier,

2001). The Wikipedia's main definition of independent music is as follows: *"In popular music, indie music (from independent) is any of a number of genres, scenes, subcultures and stylistic and cultural attributes, characterised by (real or perceived) independence from commercial pop music and mainstream culture and an autonomous, do-it-yourself (DIY) approach"*. (Wikipedia, "Independent music").

Wikipedia divides the independent music business to three categories based on productional aspects. Artists making music for the big four record labels (Warner, Universal, Sony BMG and EMI) are not considered as independent. There are numerous smaller record labels working on the music business. Many of them are quite big, but there are also plenty of very small record labels, with only a couple of small groups in their lists. As within movie and game business, there are several opinions on where the line between independent and non-independent companies should be drawn. In the other end of the scale are the purists, who count larger companies, which do not belong into "big four" also non-independent. Some of these purists are even willing to stop listening to their favorite artists, if they move on to bigger labels. (Wikipedia, "Independent music").

When talking with some people from small record labels, e.g. Janne Granberg from Jyväskylä-based Rikos-Records, they have emphasized the economical side of the independent music production. All of the record company people shared the same opinion of independent music being something that is produced and distributed outside the big record labels. At least Granberg said indie has nothing to do with the aesthetics of the music, indie is pure economical aspect. As an owner of a record company, Granberg's opinion can be biased towards economical aspects, but it reflects the inner workings of music industry. Small companies can not, or do not want get their records and artists to large distributors and radio channels, so the business stays small and music more or less underground.

2.3. Government funding

The funding from government or other organizations is an aspect worth consideration. In Finland, National Technology Agency (TEKES) has been supporting basically every commercial game project through their Fenix-program. This kind of action makes it possible to keep the independent game development independent. Game companies do not necessary need to sell parts of the company's stocks to bigger companies in the hope of extra funding needed to complete company's next potential hit game.

The question of level of company's or game's independence while funded by government is relevant. The funding instance is bigger and in most cases wealthier than big game publishers. Until now, the Finnish funding has been aimed on technological development rather than single games. “*Instead of one-off projects, the programme targets product-based businesses and projects which contribute to competitiveness and know-how in the long run*” (TEKES, 2006a). When looking at the funded game business projects, it seems Fenix-program has mostly funded different game platform and development tool projects. For a single game or game demo, the money has been given only a couple of times (TEKES, 2006b).

Respectively we can think about the independence and funding of *America's Army* and other games produced by the army of United States. *America's Army* is a first person shooter, which was originally implemented as a mod-extension on a licensed game engine. The game has rather massive budget – even among commercial games and the main purpose of the game is more like PR-action, rather than business or a good gameplay experience. The game itself fulfills many of the requirements for an independent game. It is freely downloadable, playing does not cost a dime and it is not produced by a big game publisher. *America's Army* lies in a gray area of independent games, there might not be an explicit solution that satisfies everybody.

2.4. Special features of independent game production

Because the production of independent games is not necessary risky business, the game makers can make games for different purposes, even ones with no commercial potential. Independence from external funding makes it possible for game makers to explore and try out new technologies and themes easier than when working on big, commercial productions. Also innovating and exploring of new styles and types of (game)play is possible.

2.4.1. Game development competitions

There are several game competitions arranged every year. Some competitions are free for any kind of games. For example in 2005 MindTrek-multimedia competition, there were at least Finnish games *FlatOut* and *Pogo Sticker* – in different categories, though. *FlatOut* was not initially made for competitions, but for commercially successful hit game. *Pogo Sticker* was completely designed and made for Assembly 2005-demoparty's game development competition. *Pogo Sticker* came third in Assembly and won the MindTrek's Casual Games -category, while *FlatOut* won the money of the customers.

Special theme or technical or stylistic limit is typical for game competitions. For example, suomipelit.com -site arranged a 48 hour game development competition, with theme “sauna”. The competition timer started when the theme was revealed. After forty eight hours of programming and graphic/sound design, 26 works were contributing, in more or less complete form but anyway playable form. There were no restrictions for technologies, so there were contributions made with C/C++, *Macromedia Flash* and *The Games Factory*. This kind of “technology free” game development competitions are held at least at Assembly demoparty, where the contributing games have to be sent to organizers well in advance. Assembly does not restrict the theme or development time – only the time game is shown on the big screen is limited to three minutes per game.

Technologically restricted competitions can be focused on a special technology or development tool. For example, many companies producing game development programs either arrange or sponsor competitions restricting (and promoting) the technology to their own one. Also the themes of competitions can be technologically oriented, for example size limits are possible, or the use of certain technology on surprising or challenging way. For example, flashgamecoders.com -site arranged a game development competition for *Macromedia Flash* -programmers with theme “Who said Flash can't do 3D?”

It is very usual the development of games contributing in this kind of competitions halt after the prize ceremony. None of the sauna-games attending on suomipelit.com's competition has been seen as completed. At least writer's contribution to Flash 3D -competition is still waiting for casual income and enough spare time. Sometimes the games still stay alive and popular. Assembly winning *Stair* and *Truck Dismount* -games have entertained players for years. Unbelievable 96 kilobyte 3D-shooter *.kkrieger* by .theprodukkt can still amaze new and old audiences, even though its release (and competition winning) happened some years ago.

2.4.2. Schools and brainstorm-sessions

The game design and developing courses in different schools and universities do usually have limited themes or other aspects of the games or concepts produced on the courses. For example, the game design workshop held in Jyväskylä University's digital culture program in 2005 had three focuses: location based games, the person and travels of anthropologist Samuli Paulaharju and *Campus Territory* game mod for *Enemy Territory* game. During a couple of months, groups of students made a couple of more finalized concepts out of numerous game ideas. In the end, only few of the concepts were actually possible to implement (at least with contemporary technology) or commercially sane.

At least Carnegie Mellon University's Experimental Gameplay Project (EGP, 2006a) has developed games to playable condition. Three rules had been given to the participants:

1. Each game must be made in less than seven days,
2. Each game must be made by exactly one person,
3. Each game must be based around a common theme i.e. "gravity", "vegetation", "swarms", etc.

(EGP, 2006b).

As a result, about 50 games were produced during two semesters and the project was decided to make public. The ideas and implementations of the games are often hilarious and mostly quite fresh.

Indie Game Jam, which was discussed also earlier in this research, goes with the same spirit. About 10 - 20 game developers are invited to the session, which has some common theme with organizer developed game core and a couple of days to produce a playable game. There are several innovative, different and fun game prototypes produced in three events held. The games are based on huge masses of sprites, motion detection or physics. (IGJ, 2006).

2.4.3. Political games

The genre part of this research does not consider much the themes and content of games. The independent games can be somewhat thematically different from the mainstream games or ones produced by big companies. Political aspects can be dangerous and flammable now days, so mainstream productions try to be quite neutral with them.

Use of games as a part of marketing and advertising has emerged games to boost up election campaigns. For example, in the president election in USA in 2004, the games were used for and against the candidates. Many of these games have humoristic or

ironical tone. Additionally at least *Time*-magazine published children targeted games, in which player got to test their knowledge against the main candidates or Britney Spears. In some games player has to recognize for whom of the candidates, the partially shown face (nose, ear) belongs to.

Gonzalo Frasca has produced some games or game-like programs with a political message. These games criticize terrorism and war against terrorism and they really do not have any entertaining nuances. (Frasca, 2008). The non-entertaining approach of Frasca is rather original – most game makers try to take ironical approach or make the war against terror look ridiculous, for example by setting player in the shoes of George W. Bush defending the oval room of the White house, while hordes of terrorist try to rush in.

The Army of United States has taken computer games as a tool for recruit and communication. *America's Army* game, which is built on the ready made first person shooter engine, is delivered freely and partly because of that it is pretty popular amongst the players of first person shooters. Part of the success can be based on relatively high level of realism in the game. The independent status of U.S. Army can be discussed, but at least Independent Games Festival does not have it on the restricted list. Because *America's Army* uses a ready-made game engine, it can not participate in the IGF, if it is not accepted into the new mod-category, which is meant for game patches using ready-made game engine, a.k.a. mods or modifications.

JFK Reloaded is a game, where player takes a role of Lee Harvey Oswald in a school book depository in Dallas on November 22. 1963. The mission of the game is to shoot three shots as much as possible the same way Oswald is said to have shot that day. The closer of the original bullet trajectories the player gets, the bigger the score she gets. The game simulates the bullet physics very accurately and the point of the game (according to the developers) is to show the people it is possible that one man can be responsible for the assassination of president Kennedy against the claims of the conspiracy theorists. For some reason the game has been pulled out of distribution, there

are rumors about the Kennedy family threatening the developers with lawsuit.

There are some political flavors in games made by bigger companies. The political themes in bigger games are not just as obvious as in independent productions. Many 1980's simulations and strategy games set USA and Soviet Union or NATO and Warsaw Pact against each others. There was even a parliament discussion about a shooting game *Raid Over Moscow* in Finland in 1984. After the end of cold war the enemies in war games have changed to prevailing enemies of the time, even though Vietnam war and World War II have recently risen to most common shooter environments. It is very common now days that player can choose her side, but there are lots of games that can be played only on the side of NATO and its allies. Interestingly, Russian produced tactical strategy game *ALFA:Antiterror* was to be published in the spring 2006, but it did not get to western distributors. The game takes the player to Grozny in the end of the millennium and to Afghanistan in 1980's. The website of the game tells that the game is about war against terrorism and the player is always on the Russian side on the solo campaign, thus the implicit message about the terrorists should be quite clear.

2.4.4. Games as art

When talking about games as art, the concepts of game and art should be defined. Problem is handled by examining some literature and websites focusing on the games and art. The games can be researched from the artistic viewpoint as traditional aesthetic work, or with the spotlight of interactivity and gameplay. My opinion is, that games should be examined in their own context and not to compare them to e.g. paintings of fine arts, even though this kind of comparison could some times be valid.

Salen and Zimmerman have collected the definitions for the game features from different game researchers and journalists for their book *Rules of Play*. In the group of several professionals, only Greg Costikyan said the games are art (Salen & Zimmerman,

2003, p.79). Costikyan says: “a game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal“ (Costikyan, 1994). Costikyan does not really give any arguments for his opinion, and so does the idea of games as art stay fuzzy. Eskelinen (2005) handles the subject briefly. He says the difference between art and games is in the motives of interpretation. There is a goal of winning in the games, thus in the art this kind of clear motive can be non-existent. When moving in the gray area, playable art and artistic games can be achieved. (Eskelinen, 2005, p.96).

It has to be noticed, that many modern artists use interactivity as a part of their work, so some times the line between a game and a work of art can be quite inconstant. For example, the games reviewed and introduced on AvantGaming -site could or have already been shown in art museums or corresponding places, and many of them could not be implemented anywhere else (AvantGaming, 2005). On the other hand, the multimedia game *Myst* has been shown for example in Ars 95 contemporary art exhibition in Helsinki in 1995.

When examining the games from the stylistic or aesthetic point of view, which is common in music and movie world, many cases with style or audiovisuals different from the mainstream can be found. This is not a feature of the games defined independent in this research only, but sometimes also the non-independent productions can achieve the independent spirit, as well in gameplay as audiovisually. According to sources that claim independent is something that is different from mainstream, these games could well be independent, even if their production was funded by big production houses.

Typically modern games try to be visually photorealistic. The graphic engines of the games (and the hardware too) try to simulate the real world phenomena, e.g. by using texture mappings, gradient lightings and smooth shadows. Different reflections, like waves and ripples on water and lens flares are common. Styles and techniques that are different from these could be thought as specialities among games, even if they are

familiar from cartoons or other media. One example of technique used to render non-photorealistic imagery is cell-shading, where the surfaces are drawn using only a couple of shades instead of gradually darkening smooth shading. Additionally strengthened outlines can be drawn around objects to emphasize the cartoonish style.

Other examples of visually different games could be the independent game *Darwinia*, which doesn't have much textures on the 3D-surfaces. Additionally, the game characters are 2-dimensional polygons, which have old computer game and movie creatures mapped on. The console game *Rez* combines fast paced shooter to abstract polygon sceneries and powerful techno music beats. In side scrolling shooter *Alien Hominid*, every monster and background is hand drawn separately, and the hand drawn graphics of *Viewtiful Joe* series can not be left unmentioned. There is also a side scrolling shooter *Platypus*, which is produced using photographed plasticine graphics.

The artistic merits of games can be approached from non audiovisual way. In 2005 released *Façade* is a game, where the player follows the resolving of other characters' relationship problems for one night. The player can take a part in the incidents, but the game does not wait for player's reactions and keeps going on in the control of the built-in artificial intelligence toward the end. There is no actual winning or losing in the game, but the player can examine different reactions caused on other characters' by their actions. In the world of electronic games, *Façade* has an unique and novel gameplay and it has been discussed in numerous conferences and publications (links provided on the game's website).

Games that bring some extraordinary concepts to traditional game types can also be examined from the artistic point of view. For example, the 2-dimensional platform game *Gish* is based on excellent physics simulation and on the tar ball -like game character, which has three different forms: normal, hard & heavy and elastic & sticky. The player has to use all the forms to go through or around obstacles in the stages of the game. The platform/puzzle game *Snowman in Hell* – produced as a student project in University of Art and Design Helsinki – is a story about a snowman who suddenly

finds himself in blazing hell. The graphics of the game are photocollages and the character has a constant problem of melting, which he tries to avoid by absorbing random snowballs in the scenes. Nintendo's *Paper Mario* is a good example of non-independent game with unusual gameplay. The game character is made of paper and when needed, he can slip under a door or fold an paper plane from himself.

2.4.5. Hacker ethic

Many of the sources under examination in this research mention the adoring of freedom and fun instead of higher standard of living as an important ideology behind independent game production. As was proved in Game Developer Conference's panel discussion, it seems that the whole gaming industry lies in the hands of people having just fun (Taylor, 2005). The situation seems more dense in independent world than in the big business. The fun factor can be thought as something personally satisfying, which is mentioned to be the indie spirit in the Gametunnel's column about indie ideal (MacDonald, 2005b).

The fun factor is a crucial element of main idea behind hacker ethics. Steve Wozniak said in his graduation speech in Berkley, 1986: "happiness equals to food, friends and fun" (Himanen, 2001, p. 55). In the prologue of Himanen's *Hacker ethics*, Linus Torvalds forms the "Linus's law" (not to be mixed to another "Linus's law" related to open software development), in which Torvalds claims that people have three kinds of motives: surviving, social relations and entertainment (Himanen, 2001, p. 13). The analogy between Wozniak's and Torvald's ideas is obvious. Both men express the idea that entertainment or fun is not just watching movies, hedonistic gormandizing or lazy lounging. For some people creating something new is a form of having fun, even if it requires much of hard work. In a keynote held in independent Games Conference 2005, Mark Frohnmayer said it could finally be possible for independent game makers to leave their day job and concentrate on game making (Dillon, 2005). This reminds of the independent developer's enthusiasm to work passionately and hard, even if they could

not make their living from the games. For many hackers and game developers, the money is just non-avoidable thing that makes surviving possible.

International Game Developer's Association has founded a special interest group for Quality of life in game industry. Their survey points out that people working in game industry are often doing really much over hours and usually don't even get paid for them. Despite of long days and during crunch time, nights also, 62% of attendants told they felt their job well or very well satisfying. (QOL-SIG, 2004. p. 16).

When looking at the survey data from independent developer's viewpoint, the demographic is rather different from other game industry workers. Independent companies tend to have shorter days and crunches are more rare. On the other hand, people get worse compensations for extra hours on independent companies. For the satisfactory of work question, independent workers gave slightly lower ratings than people working on other types of game companies, so it seems independents are not so happy for their work after all. On the other hand, over 73% of independent developers planned to stay in the game industry for their whole career, while among other workers the ratio was only 45%, and 36% was going to leave game industry in five years. Reasons for these figures can be found in work times, game release deadlines (independents often release when game is ready, others release when the time has come) and company's economy (independent developer's greatest worry was company's financial situation, while others were mostly stressed by tight shipping dates). (ibid.).

The results can be interpreted so independent companies have tighter budgets and less cash flow, but they also have more freedom to make their games as good as they like. Even though independent developers seem to be less satisfied, on the other hand they seem more happy and have more time to spend with their families and friends.

Self expression and possibly respect gaining might be ones of the most important motives on freeware and other non-profit games production. Social respect is one of the

main ideas of hacker ethics (Himanen, 2001), and the motivations of the Open Software movement aren't really far from that. Surprisingly, not many of the Open Software developed games have been developed even nearly finished. Maybe the most popular Open Source game is *FreeCiv*, which is quite straight remake of Sid Meier's classic Civilization, with multiplayer functionality. On the game engine and technology area the open source development has been more effectively creating possibilities and tools for independent game makers, by developing many graphic libraries and game- and physics engines (e.g. *Ogre 3D*, *SDL* and *ODE*).

Regarding to hacker ethics, one phenomenon closely related to game development is demoscene. Demos are programs running realtime, which combine code, graphics and music to technically very challenging and aesthetically rich productions (Tasajärvi, 2004, pp. 17-20). Demo parties are competitions and happenings, where demo makers gather together to have fun and compete with each other. Almost only economical benefit the demo makers can get, is through competition success, so demo making is a pure mixture of hard work fun, social activity and respect in the world of information technology. The relationship between independent games and demoscene is formed by game development competitions, which are held on some demo parties. Additionally, many Finnish and foreign professional game developers have gained their skills and relations on demoscene activism and demoparties.

2.4.6. Distribution channels

After a rapid popularization of the internet during mid 90's, the distribution of games has become significantly easier to small publishers and game makers. Before this the games were spread out on disks sent by classic mail, or by using electronic bulletin boards, only few had an access to the FTP and other internet-services used for file transfer. For hobbyists, there were not many possibilities to get the game to large audiences.

Game's way from the developer to consumer goes traditionally through at least three different game business actors. According to various informal discussions with Finnish game developers and to Bouncken and Müller-Lietzkow (2004), there are at least publisher, wholesale and retail seller – each having their own affiliates like logistic companies, case manufacturers et cetera. This figure have changed during last couple of years, when successful game distribution over internet has finally got its starting kick in the form of services like Valve's Steam (Valve, 2006).

Next diagram shows the relationships between the developers, publisher, distributor and retail sellers. Solid arrows show the typical way of working and dashed ones the more uncommon ones. Notice that there is two-way arrow between non-independent developer and publisher. That shows the developer's dependency on publisher's funding during the games development phase. Semi-independent developers don't have that kind of relationship. The publisher and distributor can sometimes be single company doing both of the tasks.

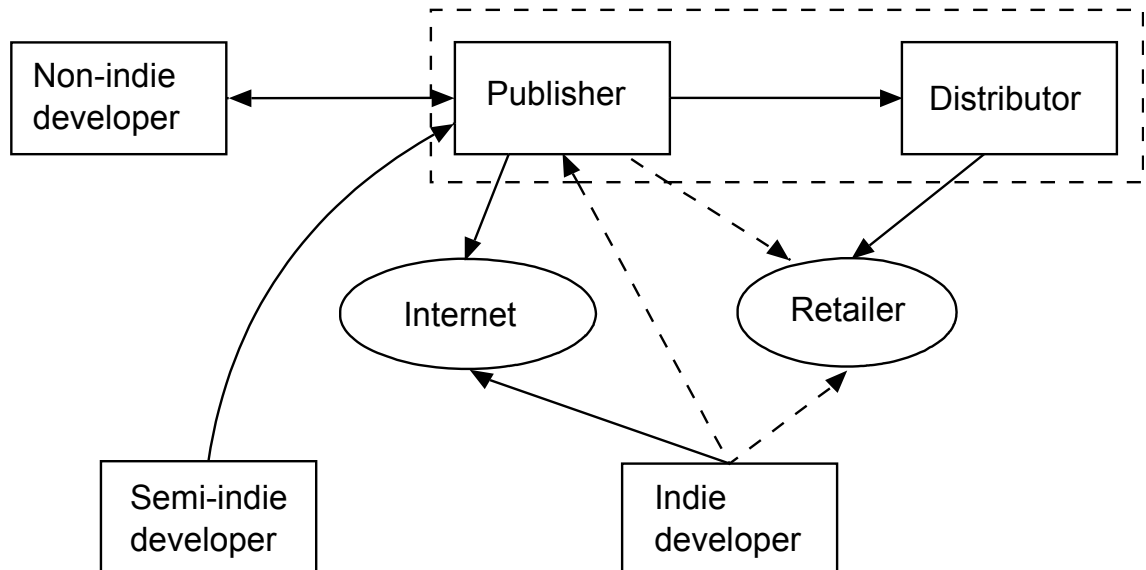


Diagram 1: Distribution channels

As Nicholas Negroponte (1996, p. 10) points out, bits are much easier, cheaper and faster to move than atoms. Thus, the possibility for electronic delivery of games has made it possible for even the smallest game producers to distribute their games all

around the world. The cost of a reasonably good web host or rental of electronic payment system is much less than the expenses of mastering, pressing, packaging, delivering and selling of games in the retail stores. It is also much easier for hobbyists and amateurs to send their games to some game hosting site than getting any response from a big game distributor or publisher, thus the game distribution chain can be reduced to minimum of producer and consumer, with possibly only the site holder in between.

2.5. Conclusions on independent definitions

Independent production is understood very much as well aesthetic and stylistic as it is seen as economical aspect. On game business, the independent production is mostly thought (when it is somehow understood) as a economical thing. When applying the movie and music field's indie aesthetics to games, the independent games could be understood as productions that are some way different from the mainstream games regardless of genres or other aspects. For example, *Alien Hominid* could well be this kind of game, even if it was not produced by small company. It is very traditional side scrolling action shooter by its form, but its style and content differ quite a lot from what is now days common among that kind of games.

Respectively many games produced by big companies can represent an indie spirit. For example *Grand Theft Auto* series was very different from the mainstream during its first launch in 1998, but later on its success has generated a new type of games in the mainstream of games: criminal activities which are performed by driving and shooting that takes a place in a large, free to explore world and relatively great freedom of actions. This kind of adoption of successful independent production formula to the area of mainstream is familiar from film and music world too. Quentin Tarantino's personal style has generated copycats and imitators and it is slowly been adopted to the mainstream – or maybe the mainstream is adapting to the new style. In the music scene, grunge-style lead by Pearl Jam and Nirvana, was very indie in 1990's, but now days

corresponding music is quite popular.

Dan MacDonald wrote about indie-spirited games, that they are “labor of love”. Games do not need to be original or audiovisually special. If the developer of the game has put her heart and soul into the game without thinking of gaining maximal audience, the game has indie-spirit. The game can be a hit and make millions of dollars and it can gain distribution deal, it still can be independent production. (MacDonald, 2005c). When comparing this vision to cinema and music, the analogy is clear. Indie-spirit is the love that the production has gained from the makers. It can not be described, but it can be recognised when seen.

The economical/productional three-way division of independent producers introduced by Merrit (2000), can easily be adapted to the field of game development. The Wikipedia's three-layer division of music makers in the independent music scene supports well the Merrit's division. Both sources mention big companies and studios as absolutely non-independent instances. Smaller actors can be called as semi-independent or not so purely independent producers. In both cases there is the totally independent part of producers and makers, who have no connections to any business of their line.

Big companies as Electronic Arts, Sony and Atari and their subsidiaries and developing teams can be count as completely non independent. There are a couple of actors in the game business, which can be compared to music industry's “big four” or movie's “big six” companies. Defining of big actors in the gaming industry could be done by applying the Independent Games Festival's restrictions on eligibility (IGF, 2005). Analogically to the movie and music industries exclusive definitions, many independent game makers define independent games as ones, that can be accepted to the IGF competition. At this point it can be good to think on every restricted instance, if it is rational to name some universities or other actors as independent and others not. The main idea of excluding the big companies out of the independent scene is correct.

Semi-independent instances are companies that are not committed to a certain publisher, but can offer their games to different directions in a hope for better contracts. Many of these companies work as subsidiaries for bigger studios, producing games or parts of games as they are needed and ordered. This kind of subsidiary work can not give the gaming industry same kind of creative potential, as can the independent developers with their own innovating and implementing, which is sold to publisher's possibly after a playable demo version of the game is available (Costikyan, Appendix 1).

As completely independent game producers can be count most of the makers of browser games, downloadables and those, who manage to get their games on the shelves of retail stores without a beforehand made publishing or delivering deal. There are a lot of fresh ideas and willingness to experiment in this group. The risks of the producers are much smaller than in bigger companies – in the minimum, the only resource lost in failure is time. In the case of indie spirit and innovativeness, this is probably the most important sector of game industry. There are also a lot of hobbyists and semi-professionals, who dare to put their selves into the game and that way realize their most personal and weird ideas for games.

To sum up, there are instances making games without any financial support from large game companies. Many of the makers ask some kind of charge for their productions. Some of the askers even manage to get some. The closer to the non-profitable the production gets the more important grows the meaning of fun-factor in the production. Since nearly every one who makes games, does it because it is fun, the developers of freely downloadable or otherwise reachable games could be considered to achieve the indie ideal of freedom of self expression, unlimited creativeness and fun most effectively.

3. Game genres

One way to do a research between independent and non-independent games is to compare the game genres and division of games between different genres. Making genre definitions is especially difficult within gaming field. Basically games can be divided by their content almost similar than movies – western, sci-fi, fantasy etc. Analogies between game and movie styles can also be found. Additionally to these viewpoints, games have genres of interaction and game mechanics.

In common language games are often described with terms like first person shooter, real time strategy, platformer, racing etc. These terms describe playing of games much better than, for example war game, fantasy game or action game. As a practical example of the difference, I said a couple of years ago in an IRC-conversation, that I like *Steel Panthers: World at War*, because in my opinion, it simulates a fighting in world war II very interesting way. My conversation partner recommended me an *Operation Flashpoint* game, if I was interested in war simulations. That game did not really interest me much, because it was a war game seen through the character's eyes running realtime, while *Steel Panthers* is a hex-mapped, turn based strategy game.

3.1. About non-genre game type divisions

In the dawn of game research, Roger Caillois made some pioneering work when he divided different games to four different categories. Games of *agôn* get their fun out of competition and player's development. For example football and chess are games of *agôn*. Games of *alea* have a basis on random actions and a chance. The name *alea* is borrowed from latin and means dice, which describes this kind of games quite well. Games of *mimicry* are games of make-believe or simulation. Games that include an aspect of vertigo are called *ilinx*, which is commonly present in video games (been shot at, driving extremely fast speed). Additionally Caillois has an axis from *paidia* to *ludus*,

where games turn out more and more formal, when moving towards ludus. (Caillois, 1961).

Jesper Juul has divided games into two separate categories by the rule structure of the games: games of emergence and games of progression. Games of progression directly set up each consecutive challenge in the game. Games of emergence set up challenges indirectly, because the rules of the games interact. Not all games are games of strictly either of the categories. Traditional adventure games are purely progression based. Multiplayer card, board or strategy games are purely emergent. Single player action games can be seen as progression based games with emergent components, and multiplayer roleplaying games as emergence games with progression components. (Juul, 2005, p. 67-72).

Juul's division has a lot of similarities with Crawford's information-rich and process-intensive games. Crawford's information-richness means that the game mechanics is mostly there to bring the player data or information about the game fiction. Adventures are most likely information-rich games. Games that are strongly related on game mechanics and rules and have actually very little story-like content are thought as process-intensive. For example most of the board and strategy games are more process-intensive than information-rich. Crawford also has a concept of ideal game, which is ultimately process-intensive set of rules. (Crawford, 1982, p. 46).

3.2. Game genres in Wikipedia

There are at least three articles about game genres in Wikipedia. In Classification of games article (Wikipedia, "Classification of games") the games are first divided by two distinct criteria. First criterion is Sutton-Smith's (1997) four-tier division and the second one are the equipment needed for playing. Number of players, randomness, deepness of strategy, easiness, level of abstraction, removing players in the middle of the game and the goal are mentioned as less important criteria. The article is valid in the field of

conventional games as well as in electronic ones.

In other Wikipedia's article, the genres of electronic games are divided to major, notable and superseded genres. Major genres include action, fighting, role-playing, platform game, simulation, sports and strategy, each having some subgenres. Notable genres are adult, adventure, arcade, artillery, educational, maze, music, party, pinball, puzzle, stealth, survival horror, traditional and vehicular combat. Interactive movies, light-gun games and scrolling shooters are being considered as superseded game genres. (Wikipedia, "Computer and video game genres")

The genre division of latest article is not even trying to be exclusive and it also includes a lot of overlapping genres. Interestingly the writer of the article has lowered platformers to notable genres, even if very large portion, if not most of the console games are at least a bit of platformers. The vehicular combat -genre being individual and as important as puzzle-genre is very unique point of view, and might be strongly biased by writer's subjective field of experience. Same phenomenon can be seen between adventure and artillery game genres, which are on the same level of genre hierarchy.

The eternally evolving, unstable nature of Wikipedia is obviously visible, when comparing the October and April 2006 versions of the same texts. In April, the adventure game genre was marked as superseded, but in October it is notable. This reflects the evolving cycle of game trends. Adventure games were in the edge of extinction for many years, but lately there have been many new releases on that genre – mostly because small but active group of players has been asking for them to be produced.

Third of the Wikipedia's articles about game genres found during the research divides the games to more conventional genres. The main categories are action-adventure, adventure, arcade, educational, fighting, first-person shooters, third-person action, on-

line, puzzle, rhythm, role-playing games, simulations, programming games, sports, strategy, miscellany, collectible card game and traditional (Wikipedia “List of computer and video games by genre”). Most of these genres are used in other sources too, but for example collectible card games are seldom thought as a genre of their own. That genre includes only a couple of games, when other genres have lists of dozens of games.

What makes the list of video game genres interesting and distinct from other sources, are the subgenres. Especially first-person shooters, which have subgenres of game-controlled environment and player-controlled environment. First means games, where player can not choose where to move (sometimes called as rail shooters) and the second one means games, where player is free to move where ever she wants or can in the limits of character's abilities and world design.

The list also reveals one flaw in this kind of commonly used categorization. Stealth action games are listed as a subgenre of third-person action games, even if one of the most important games of that genre (and it's listed there too), *Thief*, is mostly a first-person action. This derives from the fact that stealth action is a genre of content and third-person action is a genre of game mechanics or gameplay. Same kind of overlapping, but still non-exclusiveness in genre listings is very common, when the genres are defined by commonly used terminology.

3.3. Genres used in researched services

Game related web sites and magazines use genre definitions in a highly ad hoc way. Almost every one has an own opinion about game genres. This causes difficulties to find interesting games, if it is not clearly a game of specific category.

The websites used on quantitative part of this research used following genre lists:

- Suomipelit.com: *arcade, role-playing, strategy, action, skill and sports* (Suomipelit

1)

- Flash-Game.net: *action, sport, adventure, arcade, shooting, skill, puzzle, traditional, fighting, board game, racing, cards, casino, sex and multiplayer.*
- Gametunnel on autumn 2005: *action, adventure, Arkanoid, puzzle, role-playing, simulation, sport and strategy*
- Gametunnel on spring 2006: *action, strategy, puzzle and card. Additionally some games are placed in subgenres, for example puzzle/word puzzle.*

Gametunnel changed their genre divisions in the beginning of 2006, so both versions are noticed.

Each of the four services have genres of action and sport games, although Gametunnel removed sports games in its renewal. Adventure, role-playing, puzzle and strategy genres are used on three sites. Arcade and skill games are used in two places. Shooting, Arkanoid, simulation, racing, cards, fighting, traditional, sex and multiplayer are all used in only one game site – most of them at Flash-game.net. Gametunnel's way of giving brick-busting games a genre name after *Arkanoid* and not the original *Breakout* is historically interesting detail. Maybe the keepers of the site thought that *Arkanoid* is better known than its ancestor.

3.4. Mark P.J. Wolf's 42 genres

Mark P.J. Wolf has divided computer games into 42 genres based on their interactive qualities. In his article, Wolf points to Ed Buscombe's essay, where Buscombe divides movies to genres by iconography, structure and theme (Buscombe, 1970). Iconography and theme can be applied to world of narrative games directly, but abstract games like Tetris do not fit into these categories nicely. According to Wolf, interactivity is essential part of game structures and an appropriate way to examine the genres of videogames (Wolf, 2000, not paginated).

Wolf mentions 42 different game genres: *abstract, adaptation, adventure, artificial life, board games, capturing, card games, catching, chase, collecting, combat, demo, diagnostic, dodging, driving, educational, escape, fighting, flying, gambling, interactive movie, management simulation, maze, obstacle course, pencil-and-paper games, pinball, platform, programming games, puzzle, quiz, racing, role-playing, rhythm and dance, shoot 'em up, simulation, sports, strategy, table-top games, target, text adventure, training simulation, and utility*. He also mentions that these genres are not exclusive – many games can implement features of multiple genres. For example *Pac-Man* is collecting, dodging and maze game. (ibid.).

Wolf's genre list has many interesting and useful features, but for example Aki Järvinen has criticized Wolf's listing as unpractical (Järvinen, 2002). I think Wolf gives one quite useful viewpoint to the genres of games, but 42 equal genres are really unpractical. Also some of Wolf's genres have nothing to do with the gameplay, as utility, demo and diagnostic. Additionally, some of Wolf's genres feel a lot overlapping, e.g. racing and driving, where most distinctive feature is racing-genre's other competitors, which driving games do not have – they are just obstacles. Wolf's genres have similar oddities to Wikipedia's genre listings, where some very special game group is risen as important as larger genres, in Wolf's case pinball could be a good example. On the other hand, computerized pinball games were very popular around mid 90's, so this clearly is a snapshot of games played around the writing of article.

3.5. Chris Crawford's taxonomy

Chris Crawford has created a taxonomy for game genres in his book *The Art of Computer Game Design* (1982). Crawford divides games into skill- and action games and strategy games. Games of the first group are based on eye-hand co-operation and usually need good reflexes. Strategy games need less reaction speed and cognitive effort. They usually need more time than action games (ibid. p. 26).

As subgenres of skill- and action games Crawford mentions combat, maze, sport, paddle, race and miscellaneous, which includes all other reaction based games. Strategy games include adventure, D&D, wargames, games of chance, educational and children's games and interpersonal games (ibid. pp. 30-34). D&D (Dungeons and Dragons) games are now days commonly known as role-playing games. The high age of the writing is clearly visible on the genre division – paddle controllers are somewhat historical curiosity. Additionally, when Crawford writes about war strategy games, he mentions only one example, which runs real time. Most of the commercial modern war strategies are real time strategies. Writer himself notes that games industry is quite young at the time of writing and the taxonomy may well get out dated during time (ibid., p. 35). Division to skill and action games and strategy games suits fine for modern games.

Crawford's subgenres have similar content, form and functionality mixing as many other game genre listings and movie genres have. Paddle-genre is related to control method, combat is clearly formal or stylistic genre, while educational genre refers to content. Interpersonal games are open category even in Crawford's own text. Such games did not exist during the writing, but Crawford supposed games based on social interaction becoming very important genre. Quarter of century later the social interaction is more or less chatting and co-operating or competing with other people on multi-player games, though relationship game *Facade* promises at least some hint of in-game built non-scripted social interaction.

3.6. Espen Aarseth's Multidimensional typology of games

In 1997 Espen Aarseth introduced the multidimensional typology for textual communication (Aarseth, 1997). He compared different texts to find out different features of different texts. If a new text had an feature, previous texts did not have, the feature was added to the typology. Aarseth et al. used same methodology in 2003 to produce a multidimensional typology of games. This lead to 13 parameters, which can be used to give a type to every game. Method works on all kind of games from cards to

shooters. Two mobility-related parameters were added later. (Aarseth & al. 2003).

Aarseth's division focuses on gaming or playing related features of games. Parameters are roughly split into five categories: space, time, player structure, controls and rules.

Parameters in space-category define the game's perspective, topography and dynamics of game environment. Time parameters tell about game pace (turn-based, realtime), mimetics (does the game mimic the real world time) and continuation of the game (does the game have an ending). Player structure tells if the game is single player, two player, or multiplayer. It can also be one-team, two-team or multi-team game. Notable point on this category is that multiplayer and single player versions of the same game are usually count as different games. (ibid. p. 51). In my research, games are categorized by ad hoc-method based on most common way of playing the game.

Parameters on Aarseth's control-group tell about mutability of game character (static, power-ups, experience-leveling), possibilities of saving (non-savable, conditionally savable and freely savable). Last parameter of controls is determinism – if game uses randomness as a part of gameplay or not. Rule based parameters gives us information about game's place, time or goal based special rules. (ibid. pp. 52-53).

Aarseth's typology is very good tool for game categorization on certain level. It does not tell anything about game content or style of narration, so per se, it can be used to classify ludological dimensions of games. Aarseth himself says the typology is incomplete, so it can be used besides with other methods or modified by adding or replacing some of the attributes (ibid. p. 53). Additionally it is notable that most of games sharing same commonly used genre name (e.g. first person shooter) share similar parameters on Aarseth's typology. On the other hand, many third person action games and for example platformers share same kind of attributes, eventhough players see games absolutely distinct.

The biggest strength and weakness of Aarseth's typology is its ability to give no explicit name on any genre. This gives a lot of possibilities, but on the other hand, it makes it more difficult to speak about topics on general level. For example, when talking about first-person shooters, player/researcher knows immediately what kind of game is under discussion. Using Aarseth's typology on every day talk is more difficult. “vagrantly viewed, freely moving game, with non dynamic environment, mimetic realtime...” is not necessary the most intuitive way of saying “first-person shooter”.

3.7. Genre synthesis of Aki Järvinen

Aki Järvinen has approached the game genres in his currently unpublished doctoral thesis by applying Rick Altman's semantic/syntactic/pragmatic theory for film genres. Altman's original theory has origins on conflicts of commonly used film genres. For example musical as a genre refers to film's expression, while western is clearly thematic genre. Altman's semantic/syntactic/pragmatic view analyzes films on three levels: their common building blocks (semantic), ways of connecting them (syntactic) and pragmatic wholeness forming from the combination of the first two. (Altman, 1999).

According to Järvinen, the Altman's semantic/syntactic/pragmatic approach can be adapted to game world as thematic/dynamic/pragmatic. For games, the dynamics (as gameplay) is essential part of the definition. Basing on wide game genre research, Järvinen says that dynamics and interaction are the particular features, which is used to separate different game genres. (Järvinen, 2007) For example, first person shooter, real time strategy or racing simulation can tell more about the game playing experience than e.g. crime, sci-fi or western.

3.8. All Game Guides genre list

All Game Guide is a part of All Media Guide group. It licenses its entertainment content databases for several clients, for example Apple and Amazon. In November 2006 its database included information about 31000 video games. (All Media Guide, 2006a). All Game Guide's genre and style listing contains about 150 genres for computer games and programs. The amount is definitely too large to be practical, but classification under main genres helps with the focus. The 18 main genres are *action, adventure, development tools, educational, emulators, fighting, home, puzzle, racing, reference, role-playing, shooter, simulation, sports, strategy, traditional, utility and x/adult*. (All Media Guide, 2006b). Genres of development tools, emulators, home, reference, utility and partly also educational are not actually game genres, but other 10+ genres are rather useful.

All Game Guide's division of genres creates a good basis for pondering a tree-model of genres. Most of the main genres give a good hunch of the games, but subgenres are especially useful when a more accurate definition is needed. Both main genres and subgenres are not explicit and exclusive, because some of the games are impossible to put in only one of All Game Guides over hundred subgenres, or sometimes in any of them. Also, x/adult and educational are more genres of content, while others are focused on gameplay.

All Game Guide's genre listing is kind of expansion of Wolf's genres. Most of the Wolf's genres are included in All Game Guide's subgenres. Two-level hierarchy of genres is a definitive improvement compared to Wolf's division. Additionally, All Game Guide's genre names are closer to modern everyday gaming vocabulary than Wolf's ones, which feel a bit more distant from language of game playing people. The complete list of All Game Guide's genres is attached as Appendix 2.

3.9. Genre synthesis

Because it seems there is no exclusive model for genre division of electronic games, a new one is made for the usage of this researches genre comparison. All Game Guides genre- and style listing is taken as a basis for this division. The particular list includes nearly every game genre that is used in everyday gamers speech, but also adds many non-game classes, like tools and emulators. The main genres of tools, emulators, home, reference, utilities and adult games are dropped out, because those are not actually gameplay or gaming related genres and there were no computer programs in the quantitative genre comparison, which could fit into any of these genres – except adult. The adult genre is dropped out because it is more a genre of content rather than gameplay. All Game Guide's genre list also corresponds to Järvinen's listing of typical genre division, except of additional “traditional” genre (Järvinen, 2007).

This genre division concentrates on the ludological dimensions of games. Stylistic and content-related aspects are left outside of this research, though they are handled slightly elsewhere in this writing. Focusing on gameplay related aspects was thought to be a good way to limit the scale of the research, since the content and style related aspects are not as useful on describing games, which is also said by Järvinen (ibid.).

The games are been divided under All Game Guide's main genres, but in some cases subgenres are also used, especially on biggest and most important genres of every media studied in the game genre part of this research. By this, an useful comparative division is achieved, which enables getting a deeper glance on the inner structure of currently most important game types. In some cases, even more accurate division could be used, e.g. first-person shooters in which player's character moves on pre-defined route are sometimes called railshooters. These games differ from other first person shooters when compared using Aarseth's multidimensional game typology's topological attributes. Railshooters are topological, while typical first-person shooters are geometric by topography.

All Game Guide's division suits well for the independent game sites genre divisions. Most of the genres used on independent sites are straight from All Game Guide's main genre list. Only significant difference is arcade-genre, which is used in flash-game.net and suomipelit.com but does not occur on All Game Guide's list. Unfortunately, defining an Aarseth's typology for every All Game Guide's genre can not be done really accurately. For example action and shooting genres have so many different subgenres, that there is not really many common attributes between them. Aarseth's typology is, however, very useful and accurate, when it is used on subgenres. On that level the differences are mostly small nuances, which do not affect really much on the big picture.

The following table shows All Game Guide's genres and their Aarseth typological attributes. The attributes in question are not definitely exclusive or exact among all the games of a certain genre, but they are quite accurate on most of the games. If there is no attribute mentioned on a certain genre, the dispersion of the feature on that particular genre is so large, that there is no mean to use any of the possible values. When examining the subgenres, the usage of Aarseth's parameters gets easier, because games in a certain subgenre have more in common than games in the same main genre.

	Space			Time		
	Perspective	Topography	Environment	Pace	Representation	Teleology
Action			static	realtime	mimetic	finite
Adventure	vagrant	geometrical	static	realtime	mimetic	finite
Fighting	omni-present	geometrical	static	realtime	mimetic	finite
Puzzle	omni-present	topological	static	turn-based	arbitrary	
Racing	vagrant	geometrical	static	realtime	mimetic	finite
Role-playing	vagrant		dynamic	realtime	mimetic	finite
Shooter	vagrant		static	realtime	mimetic	
Simulation			static			
Sports	omni-present	geometrical	static	realtime	mimetic	finite
Strategy	omni-present				arbitrary	finite
Traditional	omni-present	topological	static	turn-based	arbitrary	finite
	Player structure		Controls		Rules	
	Players	Mutability	Determinism	Topological	Timebased	Objectivebased
Action	single	power-ups		yes	yes	yes
Adventure	single	static	deterministic	yes	no	yes
Fighting	two	static		no	yes	
Puzzle	single	static		no		
Racing		static	non-deterministic	no	yes	
Role-playing	single	experience	deterministic	yes	yes	yes
Shooter		power-ups	non-deterministic	yes	no	
Simulation		static	deterministic	no	no	yes
Sports		static	deterministic	yes	yes	
Strategy		static	deterministic	yes	yes	
Traditional		static		no	no	no

Table 1: All Game Guide's genres and their common characteristics according to Aarseth et al.'s typology

When comparing this genre division to Chris Crawford's taxonomy (1982), many familiarities can be seen between the genres used in this research and Crawford's subgenres. Thus it is possible to compile our genres under the two main categories Crawford defines. Skill and action games include action, fighting, racing, shooter and sports genres. On the other hand, adventure, puzzle, role playing, simulation strategy and traditional genres belong into Crawford's strategy games. This classification can turn out to be vulnerable on a closer look, for example puzzle games include many games that need fast reflexes and quick action almost as much as they need strategic thinking. This reflects the difficulty on explicit genre division.

There are some conflicts or differences between All Game Guides and the one used in this research. In my opinion, the manager games should belong into strategy games

rather than simulations, because the decision making in these games is usually made in arbitrary pace, not in realtime, so I have moved it from simulations to strategy. Manager games are also more deterministic than simulations, which can have more surprising twists, like rains in car simulator. Additionally I have left the educational and adult -genres out of my genre list, since they are more content than game play related genres. All of the adult and educational games belong to some other genres, when they are examined through a ludological matrix.

There are also some internal conflicts on the classification of games in the independent game services under examination. The sites can have somewhat different view or idea to certain game's genre than me or All Game Guide – or even the site itself has. For example, there are a few games in Gametunnel, which are placed into strategic games, while exactly similar games are commonly put under puzzle games. I classified those games as puzzles and they are calculated as ones when making the statistic. All Game Guide also categorizes dancing and other rhythm and music based games, which use some special controllers as simulations. I have set them in action games, since they actually do not simulate – or mime dancing, singing or drumming, but rather use those actions to control the game.

3.10. Most common genres and their features

Following list includes most common game types seen during the making of this research. Each genre has a short description of the features, and also its common attributes in Aarseth's typology. The genres are divided under Crawford's two-way taxonomy and subgenres are included in their main genres.

Action/skill games

Action

Third person action Games that are usually seen behind the character's back. Shooting

is a minor part of the action, while majority of the action comes from avoiding different traps and platform jumping. Typical example: *Prince of Persia: Warrior within*

Perspective: vagrant, topography: geometrical, environment:static, pace:realtime, representation: mimetic, teleology:finite, players:single, mutability:power-ups, determinism:non-deterministic, topological rules: yes, time based rules: yes, objective based rules: yes.

Combat Action, where fighting is in a central part, but not shooting. Commonly seen on third person view.

Perspective: vagrant, topography: geometrical, environment:static, pace:realtime, representation: mimetic, teleology:finite, players:single/one team, mutability:power-ups, topological rules: yes, time based rules: yes, objective based rules: no.

Fight Player(s) fights with or without melee weapons usually against one opponent at a time. Games are two-player games because there are two characters on the screen, though the other character can be controlled by another player or computer. Typical example: *Dead or Alive Ultimate*

Perspective: omni-present, topography: topological, environment: static, pace: realtime, representation: mimetic, teleology:infinite, players:two, mutability:static, determinism:non-deterministic, topological rules: no, time based rules: -, objective based rules: no.

Racing This class includes all games in which player drives some kind of vehicle and where driving is most important aspect. There are more realistic (but not really simulators) and purely entertaining games. Typical example: *Gran Turismo 4*.

Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: mimetic, teleology:finite, players:one, mutability:-, determinism:non-deterministic, topological rules: no, time based rules:no , objective based rules: no.

Sport Sports games adapted from real world are located into sport-genre. Sport could easily be a content-related genre, when most of the manager games should be included in it. In this research, sport-genre includes exactly the adaptations of real world sports, for example tennis and hockey games. Typical example: *NHL 2005*.

Perspective: omni-present, topography:-, environment: static, pace: realtime,

representation: mimetic, teleology:finite, players:-, mutability:static, determinism: non-deterministic, topological rules: no, time based rules: -, objective based rules: no.

Shooters

Scrolling shooter Scrolling shooters are traditional type of electronic games, where environment scrolls to one direction or another. Typically the games are played with auto-fire. Often players firepower grows permanently, but almost every game has also short-term power-ups. Typical example: *Alien Abduction*

Perspective: vagrant, topography: topological, environment: static, pace: realtime, representation: mimetic, teleology:finite, players:one, mutability:power-ups, determinism: non-deterministic, topological rules: no, time based rules:yes , objective based rules: no.

First-person shooter Shooting game, where the game world is seen through the character's eyes and the gun in use is usually seen in the bottom of the screen. I have set some more tactical shooters in this genre too. Multi-player shooters are very important subgenre of first person shooters. In these games, the single player mode is left very simple and playing concentrates on multiplayer or two- or multi-team matches. Typical example: *Doom 3*.

Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: mimetic, teleology:in single player mostly finite, multiplayer can be seen as infinite, players:-, mutability:power-ups, determinism: non-deterministic, topological rules: yes, time based rules: yes, objective based rules: yes.

Third person shooter Shooter, where the “camera” typically follows the player's character right behind it and where the main action is shooting instead of e.g. jumping on platforms. Typical example: *Mech Assault 2*.

Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: mimetic, teleology:finite, players:one, mutability:experience/power-ups, determinism: non-deterministic, topological rules: yes, time based rules:yes , objective based rules: yes.

Games of strategy

Strategy

Strategy In strategy games player usually commands an army or corresponding instance in a purpose of beating enemies up in the battlefield. On the other hand, strategy games can also be world domination or -building and civilization and science developing based games. Usually games are turn-based and they are played on square or hexagon based map. Typical example: *Civilization*

Perspective: omni-present, topography: topological, environment: static, pace: turn-based, representation: arbitrary, teleology:finite, players:two/many, mutability:experience, determinism:non-deterministic, topological rules: no, time based rules:no , objective based rules: yes.

Real-time strategy A game type, where players are leading armies built of different units in real time. Commonly the game type includes gathering resources and building factories to produce new units. Game type differs from other strategy games by its fast pace. Typical example: *Warhammer 40,000: Dawn of War*

Perspective: omni-present, topography: topological, environment: static, pace: realtime, representation: arbitrary, teleology:finite, players:two, mutability:-, determinism: non-deteriministic, topological rules: no, time based rules:no , objective based rules: no.

Manager Player's mission is to lead a company or sports team. Playing is usually peaceful and not hurried, and the actual sport action or company's production is usually just for observing, not for interaction. Typical example: *NHL Eastside Hockey Manager 2005*.

Perspective: omni-present, topography: topological, environment: static, pace: turn-based, representation: arbitrary, teleology:infinite, players:one, mutability:experience, determinism:deterministic, topological rules: no, time based rules:no , objective based rules: no.

Simulation

Simulation Simulations are games in which player performs some real life action like flying an aeroplane, driving a car or giving commands in a flight control tower while game mechanics try to simulate reality as accurately as possible. This class could include many games from racing-class, but the difference could be thought to be the stressing of reaction speed and agility in racing games. Typical example: *Pacific Fighters*

Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: mimetic, teleology:infinite, players:-, mutability:static, determinism: non-deterministic, topological rules: no, time based rules:no , objective based rules: no.

Lifesim/Sim Games or game-like digital toys, where player's mission is to take care of characters' life and development. Typical example: *Sims 2*.

Perspective: omni-present, topography: topological, environment: dynamic, pace: realtime, representation: arbitrary, teleology:infinite, players:one, mutability:experience, determinism:non-deterministic, topological rules: -, time based rules: -, objective based rules: -.

Puzzle

Puzzle Puzzles are games, where player focuses on solving a problem. Crosswords and other games, where where the whole set of content and rules are visible to player are very typical puzzle games. Typical example: *Crimson room*

Perspective: omni-present, topography: topological, environment: static, pace: turn-based, representation: arbitrary, teleology:finite, players:one, mutability:static, determinism: deterministic, topological rules: no, time based rules:no , objective based rules: no.

Action puzzle In action puzzles, the player tries to solve fast-paced problems within a time limit. Games can have a board filling up slowly and player's mission is to try keeping the board as empty as possible. Very common match-3 -type games, where player has to set three similar game tokens in line, belong into this group. Typical example: *Tetris*

Perspective: omni-present, topography: topological, environment: static, pace: realtime, representation: arbitrary, teleology:infinite, players:one, mutability:static, determinism: deterministic, topological rules: no, time based rules:yes , objective based rules: yes.

Adventure Adventure games are strongly narrative games, where player's role is usually finding correct clues so the story can continue. Very often adventure games are very linear, forking only for a while to give a player possibility to find all the clues needed to go through next node of the adventure. Typical example: *Legacy – Dark Shadows*.

Perspective: vagrant, topography: topological, environment: static, pace: realtime, representation: arbitrary, teleology:finite, players:one, mutability:static, determinism: deterministic, topological rules: yes, time based rules:yes , objective based rules: yes.

Role-playing games

Role-playing game (RPG) RPG's resemble adventure games very often because of their narrativity. Usually the plot of the role-playing games forks to minor missions, which do not necessary need accomplishment to keep the main mission going on. Most important feature of RPG's is the development of the character(s), not only by new equipment but also by developing character's skills through gaining experience. Action RPG's are more focused on experience and equipment gathering through fighting. Typical example: *Fable*

Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: arbitrary, teleology:finite, players:one, mutability:experience, determinism:non-deterministic, topological rules: yes, time based rules:yes , objective based rules: yes.

Massive multiplayer online roleplaying game (MMORPG) These are games, where players have adventures in continuously persistent virtual worlds with other players. Playing is often collecting new equipment and treasure and developing the character's

stats. The game world can handle hundreds or even thousands of consecutive players. MMORPG's are a subgenre of role playing games, but as very popular and different by playing experience they are mentioned separately. Typical example: *World of Warcraft*.
Perspective: vagrant, topography: geometrical, environment: static, pace: realtime, representation: arbitrary, teleology:infinite, players:multi-team, mutability:experience, determinism: non-deterministic, topological rules: yes, time based rules:yes , objective based rules: yes.

Traditional Traditional games are adaptations of real life board- card or other games. Traditional games can also be adaptations of children's plays or pinball or casino's coin-op -machines. Typical example: *Mah Jongg*

Perspective: omni-present, topography: topological, environment: static, pace: turn-based, representation: arbitrary, teleology:finite, players:two, mutability:static, determinism:deterministic, topological rules:no, time based rules:no , objective based rules: no.

Because the games of a certain genre usually share common attributes of Aarseth's multidimensional game typology, a combination of relatively unfailing image on genres can be produced, where the variance within a specific genre is almost just nuances. Notice that in this research I have tried to place games in only one genre, even though they more and more commonly have elements from many different genres. For example real time strategies have a lot of character development elements, or strategic games have different modes for large scale decisions (turn-based) and fights (real-time).

Action/Skill games								
	Action				Shooters			
	Third person	Combat	Fight	Racing	Sport	Scrolling	First-person	Third person
<i>Perspective</i>	Vagrant	Vagrant	Omni-present	Vagrant	Omni-present	Vagrant	Vagrant	Vagrant
<i>Topography</i>	Geometrical	Geometrical	Topological	Geometrical		Topological	Geometrical	Geometrical
<i>Environment</i>	Static	Static	Static	Static	Static	Static	Static	Static
<i>Pace</i>	Realtime	Realtime	Realtime	Realtime	Realtime	Realtime	Realtime	Realtime
<i>Representation</i>	Mimetic	Mimetic	Mimetic	Mimetic	Mimetic	Mimetic	Mimetic	Mimetic
<i>Teleology</i>	Finite	Finite	Infinite	Finite	Finite	Finite		Finite
<i>Players</i>	Single	Single/one team	Two	One		One		One
<i>Mutability</i>	Power-ups	Power-ups	Static		Static	Power-ups	Power-ups	Power-ups
<i>Determinism</i>	Non	Non	Non	Non	Non	Non	Non	Non
<i>Topological</i>	Yes	Yes	No	No	No	Non	Yes	Yes
<i>Timebased</i>	Yes	Yes		No		Yes	Yes	Yes
<i>Objectivebased</i>	Yes	No	No	No	No	Non	Yes	Yes
Games of strategy								
	Strategy			Simulation		Puzzle		
	Strategy	Real-time	Manager	Simulation	Life-sim	Puzzle	Action puzzle	Traditional
<i>Perspective</i>	Omni-present	Omni-present	Omni-present	Vagrant	Omni-present	Omni-present	Omni-present	Omni-present
<i>Topography</i>	Topological	Topological	Topological	Geometrical	Topological	Topological	Topological	Topological
<i>Environment</i>	Static	Static	Static	Static	Dynamic	Static	Static	Static
<i>Pace</i>	Turn-based	Realtime	Turn-based	Realtime	Realtime	Turn-based	Realtime	Turn-based
<i>Representation</i>	Arbitrary	Arbitrary	Arbitrary	Mimetic	Arbitrary	Arbitrary	Arbitrary	Arbitrary
<i>Teleology</i>	Finite	Finite	Infinite	Infinite	Infinite	Finite	Finite	Finite
<i>Players</i>	two/many	Two	One		One	One	One	Two
<i>Mutability</i>	Experience		Experience	Static	Experience	Static	Static	Static
<i>Determinism</i>	Non	Non	Deterministic	Non	Non	Deterministic	Deterministic	Deterministic
<i>Topological</i>	No	No	No	No		No	No	No
<i>Timebased</i>	No	No	No	No		No	Yes	No
<i>Objectivebased</i>	Yes	No	No	No		No	Yes	No
Role-playing games								
	Adventure	RPG	MMORPG					
<i>Perspective</i>	Vagrant	Vagrant	Vagrant					
<i>Topography</i>	Topological	Geometrical	Geometrical					
<i>Environment</i>	Static	Static	Static					
<i>Pace</i>	Realtime	Realtime	Realtime					
<i>Representation</i>	Arbitrary	Arbitrary	Arbitrary					
<i>Teleology</i>	Finite	Finite	Infinite					
<i>Players</i>	One	One	Multi-team					
<i>Mutability</i>	Static	Experience	Experience					
<i>Determinism</i>	Deterministic	Non-deterministic	Non-deterministic					
<i>Topological</i>	Yes	Yes	Yes					
<i>Timebased</i>	Yes	Yes	Yes					
<i>Objectivebased</i>	Yes	Yes	Yes					

Table 2: Most common genres and their usual attributes

4. Comparative game genre research

This part of the research handles the hypothetical differences between the genres of independent and non-independent games. Presumption was that there are quite large differences on the division of games into different genres. Material and information about non-independent games is gathered from Finnish *Pelit*-magazine. *Pelit* is the largest Finnish electronic game magazine, so it was thought to give the best possible view to the commercial game titles being sold in Finnish retail stores. Reviews in the magazines and newspapers have rather big effect on people's buying decisions.

The genre research was mainly done by using reviews and screenshots as material. Most of the games were quite easy and quick to identify and place in a certain genre by this method. The Aarseth attributes were also somewhat easy to gather from the reviews – which on its own way proves the usability of Aarseth's typology. About one third of the games needed a deeper inspection to find out how the game mechanics work, so I was forced to try out these games. There were only a couple of this kind of games in the *Pelit*-magazine's comparison group, among the independent productions the testing was more common because of lack or obscurity of screenshots and/or review. I tried around 400-500 games during the research to find out the genre of the games. There were also problems on accessibility of *Pelit*-magazines games. Many of the games were available for download as a demo version, but while the size of the demos were around 150-600 megabytes, they were practically impossible to download. Some of the games were of course familiar to me from other connections.

The genre division I have made is just only one of numerous possible divisions. Using the same games and genres it would be possible to get somewhat different results too. This is caused by the multiple genres of multiple games and therefore the difficulty on putting them in a single genre. I have tried to include the games into a genre, which mostly resembles the games features. Despite of that, someone else might do the division differently, even if using the same principle. I dare to insist that my genre

division is valid enough to present the correct relations between the volumes of at least biggest genres and a different division would not change the situation significantly.

4.1. Games in *Pelit*-magazine

Games reviewed in *Pelit*-magazine between 8/2004-8/2005 are used in this research as a comparison group for genre division. *Pelit* is the largest Finnish magazine focused on electronic games. It handles the games without platform discrimination, so there are games for consoles, personal computers and mobile devices. The games reviewed in the magazine represent quite well the assortment of games found in the retail store shelves. Some deviation is caused by special articles and the bargains of the shops, but practically all new and most sold (and a good choice of cheaper and more rare) games are reviewed in *Pelit*-magazine. There are also some articles about downloadable games.

Typically for press, great deal of magazines game reviews are based on preview or test version of games sent to writers by game importers or distributors. This is mentioned every now and then in the reviews. Phenomenon is caused by the importance of reviews on game marketing. The review should be readable for buyers rather before than after the release of the game, so buyers could use the reviews when making their shopping decisions. This practice is quite similar to, for example Gametunnel's way to acquire games from producers. I.e. the producer, distributor or importer has an active role in reviewing, which causes a different distribution between games on the time axis, than, for example suomipelit.com's way, where anyone can propose a game to be added to the database.

4.1.1. Platforms and games

During the research, *Pelit*-magazine reviewed 300 games or add-ons. 143 of these were

available for PC-machines, 142 for Playstation2, 97 for X-Box and 28 for Nintendo's GameCube. during the examination. Games for portable devices distributed as for Nokia N-Gage, there were two games, 15 for GameBoy Advance and eight for Nintendo's brand new DS-console.

Majority of the console games were published for at least two platforms. GameCube had 14 exclusive games, which is over one third of the games released for the console. Those particular games were mostly Nintendo's own Mario Bros. or Donkey Kong-branded products. Accordingly, X-Box got 24 exclusive games, which is about one quarter of the consoles new games. The small amount of exclusive games for X-Box is at least partially caused by the X-Box's internal hardware architecture, which is based on PC-hardware. So the X-Box games are quite easy to port for PC-computers.

95 of the games published for PC was available only for PC during the research. Vast majority of games published exclusively for PC were strategy games, simulators or multiplayer on-line games. The concentration of this kind of games on PC-platform derives from PC's more versatile on-line abilities, but also from the controller devices of PC (as mouse and keyboard), which are better suited for this kind of games. Personal Computer was the only platform during the examination time which was available for downloading and buying games from some on-line services by moving only bits, not atoms. X-Box has its own X-Box Live Arcade, but typically for console world, there is only one service available and the console manufacturer has a control over the content.

4.1.2. Genre division of reviewed games

Since all the independent game services are available only for PC computers, it is relevant to make a distinction between the games available for PC and the games total reviewed in the *Pelit*-magazine. There are clear differences between the division with the games available for PC and the wholeness. Since console games are significant majority of all games published, this research is written using the total number of games

as a comparison group.

	Action	Fighting	Racing	Shooter	Sports	
PC	20 (14%)	0 (0%)	8 (6%)	24 (17%)	10 (7%)	
All	69 (23%)	14 (5%)	24 (8%)	59 (20%)	23 (8%)	
	Adventure	Puzzle	Role-playing	Simulation	Strategy	Traditional
PC	7 (5%)	0 (0%)	19 (13%)	11 (8%)	42 (29%)	1 (<1%)
All	10 (3%)	4 (1%)	34 (11%)	12 (4%)	50 (17%)	1 (<1%)

Table 3: *Pelit*-magazines genre division

Most important main genres are action, shooter and somewhat surprisingly, strategy. These three genres cover over half of the games reviewed. The minor genres of adventure, puzzle and traditional have altogether 15 games, which is about five percent of the games reviewed. Traditional, or Wolf's adaptation games is represented by only computerized pinball *Pure Pinball 2.0 Redux – American Pinball Reborn*, though Wolf has an own genre for computer pinballs.

When examining the minor genres, it should be noticed that the volume of the genres can change drastically depending on the examination time. For example, puzzle games were published and reviewed in the last third of the year 2005 more than during the examination period. This is partly caused by the beginning of the sales of handheld Nintendo DS and Sony PSP -consoles in the late-summer of 2005. During the examination, three of the puzzle games were published for Nintendo DS -console. Puzzles are very common content for portable game consoles in the non-independent world too. Same phenomenon can be seen when examining the services offering Java-games for mobile phones.

The large amount of action-genre games in the *Pelit*-magazine's game assortment is partly caused by the inclusion of consoles. Of 57 games in action genre, only 20 were published for PC, while Playstation 2 got an own version of over 40 action games. Most

of the action games are three-dimensional third person action adventures, like *Silent Hill 4*, *Devil May Cry 3* and *Paper Mario: The Thousand Year Door*. Other major subgenres of action games are combat-games, where a melee fight is an essential part of advancing in the game. *Viewtiful Joe* and *Death by Degrees* are examples of this genre. Action games form 14 percent of PC games, while of all games they form 21 percent portion.

Shooter-genre includes around 40 first person shooters – which makes it the biggest subgenre in the *Pelit*-magazine's material. It should be noticed that I have included practically all of the games having a first-person view to the game world and a gun (as an important device of interaction) in the bottom of the screen into first person shooter -genre. I have excluded some of the roleplaying games from this genre, for example *Anarchy Online: Alien Invasion* is included into massively multiplayer on-line games, even though shooting is an essential part of the game. With over 40 first person shooters, there are a couple of sideways scrolling shooters and about ten third person shooters in the shooters-genre.

Strategy games are somewhat equally divided between real-time and turn based war simulations. Real-time strategies include around 20 games. There are some questionable games included in this genre, for example *Pikmin 2*, which is a mixture of puzzle solving and strategy, and *Darwinia*, which is one of the rare examples of games reviewed in *Pelit*-magazine and available via Gametunnel-site. There are less than ten manager games included, in which only *Animal Crossing* is not an yearly update for sports management games.

Role-playing games are rather equally divided between PC-only published massive multiplayer on-line games and more traditional RPG-games. Action RPG's are leaning slightly more towards consoles, but more traditional RPG's are divided rather equally between PC and consoles. When examining the content of the role-playing games, most of the games are located in a Tolkien-like fantasy worlds. There are a couple of science fiction -RPG's, as there are also some superhero-RPG's. A couple of action role-playing

games located in feudal Japan also exist.

Most of the racing-games are typical car-racings, where realism have given way for fun and visuality. Naturally, there are the compulsory annual updates for rally and Formula 1 games, and some little bit more serious attitude games, like *Gran Turismo 4*. One of the most original racing games was, PC-only *Trackmania Sunrise*. Player tries to drive an over-tuned car through gravity-defying tracks – just for fastest times or to solve some puzzles rarely seen in racing-game.

4.1.3 Additional notes about *Pelit*-magazines material

About one third (137) of the games reviewed in *Pelit*-magazine were sequels or updates to older games. This reflects the thoughts of many people working in games industry. Big companies try to back up their revenues by making sequels to well sold games. Additionally, there were 39 games utilizing some non-electronic-game license, for example movies, sports or other. These games include annual updates of Electronic Arts' NHL, NBA and NFL -series.

There were 11 add-ons reviewed during the research period. All of the add-ons were published for PC-games. The games are usually installed on computer's hard disk, which does not normally happen on console world, so the use of add-on disks could be very difficult on consoles. There can be only one game disk in the console, so using add-on would need extra work or the add-on should be independent from the original game. X-Box has an internal hard disk, so it would be possible to make installable games for X-Box, but the feature is not widely utilized, if at all. Installing new add-ons on computer's hard disk is natural, because the game itself is installed there too and there is a convention of installing games on PC.

4.2. Suomipelit.com

Suomipelit.com (<http://www.suomipelit.com>) is a Finnish community for game producers and players. Site offers a discussion forum, where people can ask and offer help relating on game development. Additionally, a couple of game producers keep – more or less actively – weblog on their game development projects, where they share their thoughts about the development. The site does not define itself as independent gaming related, but the game selection reveals clearly the independent nature of the site.

Research-wise, the most important service of suomipelit.com are the games the site offers for users. The keepers of the site add new games suggested by the users – or anybody. Additionally the visitors and site's official reviewers can write reviews about games, which makes the selection of games to download easier. The site does not ask for any kind of payment for the use and it does not have any responsibility over the quality of functionality of the games it offers. Thus, there are a lot of hobbyist made freeware- and semi-professional shareware games available.

Besides of “small” games, suomipelit.com reviews and offers demo versions of bigger Finnish games. There were only few of these retail games amongst site's 190 games. The demo versions were left outside of the research, even though Finnish game houses belong into the semi-independent group of game makers. Games I left outside of the examination were *Max Payne 1 and 2*, *Flat Out*, *Rally Trophy*, *The Reap*, *Supreme Snowboarding* and *Shadowgrounds*. These particular games are the only ones, which have been on retail shelves and share their demo versions in suomipelit.com.

4.2.1 Genres of Suomipelit.com

Games available for download in suomipelit.com were representing their genres as follows:

Action 31 (17%)	Fighting 2 (1%)	Racing 8 (4%)	Shooter 70 (39%)	Sports 10 (6%)	
Adventure 2 (1%)	Puzzle 16 (9%)	Role-playing 10 (6%)	Simulation 3 (2%)	Strategy 20 (11%)	Traditional 8 (4%)

Table 4: Suomipelit.com's genre division

Simulations in suomipelit.com were slightly problematic group. There was one game about building demolishing and two games of Dismount-series. In *Stair Dismount* and *Truck Dismount*, the mission is to cause as much damage as possible to a crash test dummy like ragdoll character – either by pushing it down the stairs, or setting it to worst possible location on a truck-wall impact. Including these games into other genres would have been even more incorrect, so in this research they are handled as simulations. When struggling with this problem, I made a quick gallop at #suomipelit.com IRC-channel, where majority of attendants thought them as simulations.

First of the adventure games was designed as a snack-sized little game and another one was a part of epic *Star Fight* -game series. The *Star Fight* games caused some agony when trying to define their genres, because they combine various game types from shooting to strategic commerce. I have put these games into categories according to the elements stressed on the game review or introduction, so there can be a place for discussion. Almost all of the role playing games are fantasy games using a “roguelike” -engine or -style. Only two of the games were real-time by the pace and geometrical by the topology and only one happens in science fiction world.

One of the fighting games – *BlockoFighter* – has a surprising quality for hobbyist made game. There are two fighting Lego-man look-a-likes fighting in a ring made of Lego blocks. Game differs from other beat-em-ups by its physics modeling. Even big commercial fighting games do not include many examples of games, where the fighters were exposed to “real” physical forces. Usually games consist of showing pre-defined animations according to player interaction. It is not rare to see arms or legs of the

fighters clip through obstacles and other characters without causing or getting any damage. *BlockoFighter* is a great example of independent game, where creative content production and technical values have overridden the audiovisual skin – not claiming that *BlockoFighter* is ugly.

There are many Finnish national specialties amongst the traditional games. There is a computer version of famous Finnish board game *Afrikan tähti* and three versions of different coin-operated card game machines, which can be seen in a corner of nearly every bar and shop in Finland. Rest of the games in traditional genre are *Yazy-dice*, *Battleships*, *Who wants to be a millionaire*, and a version of children's fishing game. Most of the racing-games are using top-down or isometric view with tiny cars, but there are some three-dimensional ball rolling and hilarious down hill car racing on very steep mountain slopes.

Puzzle and card games are the most popular amongst the genres said to be played by casual gamers. The 16 puzzle games of suomipelit.com are less than ten percent of all games available in the site. Time-related action puzzles and more peacefully paced puzzles are quite evenly divided. In the group of action puzzles there are a couple of *Tetris*-style block games, one *Pipe Mania*-clone, one *Bust-A-Move* -type match three -game, one word game and one original color-matching game. Additionally there are two *Q-Lat* games, where player controls a colored sphere trying to hit other spheres on the screen with decent speed and order. *Q-Lat* games are very original and could easily fit into action genre instead of puzzles – at least because of their hectic pace.

Within more traditional puzzles, the suomipelit.com offers half-original assortment of games. *Memory game*, *Collapse*-clone, and a couple of *Sokoban*-like games have a good company of four completely original productions. In *Invataxi* player must guess what very inarticulately pronounced direction really means. In *Tokkobot DX* player must place building blocks falling from the top of the screen so, that the robot representing the player's character can travel through the screen. The game mixes perceivably two classic action puzzles, *Tetris* and *Lemmings*. *Gerbera Quarry* puts player in

responsibility of dummy robots on their way home. Player can not control robots directly, but the robot closest to the given direction starts to complete the task. In 2005 Assembly demoparty's game development competition winner *Kumoon* puts player into position of small chicken baby. Player's mission is to knock down the boxes in the playing field without being hit by the falling piles. Player can use a couple of different guns to complete the task, but usage of aids causes massive score losses.

Suomipelit.com's 20 strategy games divide evenly between manager games and turn-based war games. Amongst different sports manager games (mostly car sports) there are two space station management games, culture festival arranging and hotel chain management game. The war games are based on more or less real historical wars, but there is also fantasy-based gladiator management / arena fight and odd Orvelo-creatures handling game.

Ski jump and hunting/fishing are suomipelit.com's favourites in sports genre. There are minigolf, javelin, corona and humoristic doping-tuned cross-country skiing game inspired by World Skiing Championships in Lahti, three ski jumping games and three wilderness-surviving games. Javelin and Korona are very traditional Finnish games and sports, so suomipelit.com's sport games are strongly related to Finnish culture.

There is one clearly visible group amongst action games: worm games. There are five different worm games, where an ever growing snake tries to eat goodies. Worm games could be categorized as collect and avoid games according to Wolf, which resembles the game type much better than All Game Guide's 2D- or 3D-action. Collect & avoid could include two other suomipelit.com's games, in where the aim is to catch some falling objects while avoiding others with a character in the bottom of the screen. Original specialities amongst action games are *Puupeli 1* and *2*, where player's mission is to cut down trees growing around a cottage by clicking them multiple times with mouse and after that deciding, if the recently cut trees are sold or used for example to warm up the hut.

Shooting games form about 40% of games in suomipelit.com. Amongst 70 shooters, there are 17 cave flying games, where players are flying in narrow corridors and caves trying to destroy each other's vessels. Other big group are quite similar games happening underground – the difference being mostly character's inability of flying and the significant role of tunnel digging. Almost half of the shooters are split-screen multiplayer games, only the environment and weapons change. Other presented subgenres include top-down viewed survival shooters. One of the more original survival shooters is *Orbital Sniper*, where player controls a sniper gun placed in a satellite orbiting earth. Player's mission is to protect a few pixels sized VIP against dangerous pixel enemies by shooting down the latter.

4.2.2. Notes on Suomipelit.com's games

Games in suomipelit.com are relatively old. Most of the games are made for MS-DOS operating system, so they might be a bit difficult to get running on modern computers and operating systems. When comparing to e.g. Gametunnel's games, there are plenty of “hobbyist-made” -looking games, in which the production values are not very high. Many games have very simple graphics and very rarely the sound effects are pleasuring – except the musics. Additionally, the Finnish game makers' interest in making “cave flyers” in latter half of 1990's can be seen clearly.

The amateurishness and non-profit attitude has an effect on the content of the games. There are games with the Lahti Ski World Championship's doping scandal and driving an handicap-taxi to a correct location. Additionally there are special groups of race-car management and ski jump games. Ice fishing simulator could be thought as a national specialty too. Suomipelit.com's shooters do not spare blood and gore. Especially *Tapan Kaikki* -series and many of the multiplayer shooters can easily beat even the roughest big commercial games in the amount of blood.

Some of the games in suomipelit.com have attended in different competitions. *Stair* and

Truck Dismount games, and partly *PogoSticker* by the same group are made mainly focusing on Assembly demoparty's game development competition. *Star Fight* -series has also been presented in Assembly and *Space Station Manager* was the first Finnish game to get into finals of Independent Games Festival's competition. Additionally at least a couple of Ville Mönkkönen's games have been nominated and have even won honorable mentions in Gametunnel's annual best independent games nominations.

4.3. Gametunnel

Gametunnel is independent-games focusing website, which reviews independent games and annually nominates the best independent games of the year. The nominations are made by the editors of the website. There are also articles about independent game business on the site. Gametunnel's Game of the year -nomination is somewhat appreciated prize at least amongst game producers and it is often used on the marketing of winning or nominated games.

Gametunnel both reviews and distributes independent games. Reviewed games are not necessary available on the site itself, but there can be a link to a place where the game can be acquired. This research uses only the games downloadable from Gametunnel, but reviewed games were examined too. As a piquant detail, the *Stair* and *Truck Dismount* games available on suomipelit.com too, are placed in simulation category in Gametunnel.

There were nearly 400 games available for downloading in Gametunnel in february 2006. Each game had a free demo version, which could be played for 60 minutes. After this games did not turn on any more, but directed the user to a website, where the complete version of the game could be purchased. Each of the Gametunnel's games includes the same installation software, so the installation and removing of the games was easy and did not leave any unnecessary bits on user's computer.

4.3.1. Genres of games in Gametunnel

The genre division of Gametunnel's games is the most unbalanced of all media in this research. Nearly half of all games available are some kind of puzzle games. According to All Game Guide's genre listing, most of the puzzles are action puzzles. In this case the All Game Guide's genre listing turns out to be insufficient. The amount of puzzle games in Gametunnel cries for more detailed division. For example, there are no match three -genre in All Game Guide's list. Almost 10% of Gametunnel's action puzzles are this kind of games. Most of them are direct plagiaries or different variations of PopCap's hit game *Diamond Mine*. Other emerging group of puzzle or action puzzle games is plagiaries of PopCap Games' *Zuma*, which could be count into match three -category, but have a slightly different gameplay than *Diamond Mine*.

Gametunnel's games could be placed in All Game Guide's main genres as follows:

Action 91 (23%)	Fighting 0 (0%)	Racing 6 (2%)	Shooter 46 (12%)	Sports 9 (2%)	
Adventure 0 (0%)	Puzzle 181 (47%)	Role-playing 0 (0%)	Simulation 0 (0%)	Strategy 14 (4%)	Traditional 42 (11%)

Table 5: Gametunnel's genre division

The focusing on casual gamers can be clearly seen, when examining the division. Easily accessible games needing no long tutorials are well presented in Gametunnel's repertoire. Role playing games and adventures typically need long-term focus on the story, character development or game mechanics. The lack of fighting games correlates with the non-violence of Gametunnel's games. Non-humanoid fighting games are very rare, so graphical violence is almost necessary.

Majority of sports games are different billiard, bowling and minigolf games. There is only one tennis game presented. Most of the traditional games are different variants of

Chinese *Mah-Jongg*. Second largest group are card games, focusing on poker and solitaire. There are also a couple of trivias, some chesses, a couple of slots, *Sudoku* and *Backgammon*. Strategy games include a few *Battleships*-derivates and two commerce/world conquering games. There is one boxing management game and a variety of tycoon-games in different environments. Racing games include three clean racers, one racing-shooter and others are racing in various tracks using a sphere as the vehicle.

Shooters are a little more varied genre than ones mentioned before. Over half of them are some kind of scrolling shooters, where player is equipped with a flying vehicle and with the help of power-ups, is missioned to destroy everything that moves. There is only one first person shooter and four survival shooters, in which player tries to survive as long as possible in the pressure of eternally emerging mass of enemies. Majority of other games in this genre are top-down viewed space flying shooters where camera is either fixed in *Asteroids* manner or then it follows the player's spaceship. Of course there are some original game concepts, for example *Dr. Blob's Organism*, where player destroys organisms growing from the center of petri dish by rotating the dish in correct position, so the organism can be shot with a stationary weapon.

Vast majority of action games can be seen as *Breakout*-clones – or brick destroying games. In these games player moves a paddle in the bottom of the screen trying to keep a bouncing ball on the field where it is used on destroying bricks. Other big subgenre is different platformers. Some of the platform games could also be located in puzzle category, because of their speculative nature. I have put them into platformers, because they resemble that kind of games by their audiovisual appearance and ways of interaction. The rest of the action games are somewhat equally divided and no subgenre rises above the others in size.

Almost half of the games in Gametunnel are different puzzle games. The insufficiency of All Game Guides genre list is obvious when examining these games. There are four subgenres in All Game Guide's puzzle-main genre:

- Action puzzle, where player manipulates moving objects within time limits. This category includes almost all of the *Tetris*-clones and match three -type of games.
- Adventure puzzle, which have some kind of avatars or game characters, which has a task of solving the problems. This category includes e.g. *Lost Vikings*-game, which clones are placed in platformer-class in this research.
- Maze puzzle, in which the mission is to advance in a maze. All Game Guide mentions *Marble Madness* as an example of this genre. I'd rather put *Marble Madness* in action game genre, because of it's fast paced nature and resemblance with other action games.
- Word puzzles include all word-related puzzles from crosswords to hangman.

While All Game Guide's list is insufficient within Gametunnel's variety of puzzle games, following division is being used:

- Word puzzle: games which include finding or knowing of words as a main task.
- Match three -games, where player's aim is to connect a number of similar objects, after which the objects disappear and are typically replaced with new ones.
- Jigsaw puzzles: a computerized version of traditional jigsaw games. This kind of games could also be thought as traditional ones, but here they are thought as puzzles
- Action puzzle: Other puzzles, where game advances without player's active participation to game events.
- Puzzle: Other puzzles where the game doesn't go on without player's active participation.

There are plenty of variations in match three -games, which genre is present with about 30 games. In many of the games the game world or board is filled with different objects and by changing the places of two adjacent objects, player must form a row of three or more similar objects. Besides of these games, *Zuma* and it's clones in which objects appear onto screen advancing a pre-defined track are counted in match three -games. Player tries to shoot randomly colored objects in between the appearing objects trying to form groups of three or more similar objects. Games based on finding words are

presented with over 20 games. In total, these casual game types form about a quarter of all puzzle games.

On the other parts, Gametunnel's puzzles are quite evenly divided in different groups. There are many *Bust-A-Move* clones, a couple of memory games, building of pipes or wires (*Pipe Mania* clones) and many surface filling games. Luckily there are also many original ideas, such as building peculiar machines (*The Incredible Machine* derivatives). Very large portion of the large puzzle genre resembles each others, but usually gives a little bit of something new to a popular genre.

4.3.2. Notes on Gametunnel's games

Before the structural changes in Gametunnel, there was a separate genre for Arkanoid-games. Interestingly, the genre was not named after the original ancestor of block destroying games, but after a very much younger descendant. In February 2006 there were 30 of that kind of games amongst the Gametunnel's 390 examined games. The amount is larger than the amount of match three -games, which was especially mentioned by Greg Costikyan (Appendix 1), though match three games have been produced much more than *Breakout* clones in recent years.

There were also a vast amount of copies of games proved to be hits. For example, one of the greatest shareware-successes – *Diamond Mine* has got several clones utilizing exactly the same game idea. Other hit games, like *Zuma* have got many imitators in very short time period. The amount of Mah-Jongg and Breakout-derivates is relatively big when compared to total amount of games in their own genre.

Very interesting point in the Gametunnel's game assortment is the non-violent principle. Of course, there is destruction and shooting in shooters, but none of them has humans as targets. Blood and gore is seen in only a couple of games, and even in them, the blood

drips from aliens threatening the earth. Only *Tanks Evolution* has human characters, which were driven over by tanks and transformed into red splats. This non-violent aspect woke my curiosity and made me to check out a couple of other sites offering downloadable games. The leading independent games producer's, PopCap's, games had no violence at all. The games available on Mad Monkey -site had some bloodshed, but not nearly as much as suomipelit.com's or flash-game.net's games.

Gametunnel was the only one of the examined media, which left behind empty genres. In every other there were at least one game in every genre, but in Gametunnel, the genres of adventure, fighting and simulation were left totally without participation. This is a great example of division of games in the group of so called casual games. Gametunnel is the only site in this research offering small, commercial games. Every other independent media under examination do not have any business related on the sales of the games they present.

4.4. Flash-game.net

Flash-game.net is a website, which is focused on games made with Macromedia's *Flash* and *Director* multimedia authoring tools. The games on the site are highly variable on both quality and content point of view. The variety is partly caused by the game gathering method of authors sending their games to the site. The administrators of the site perform just a content checking to ban racist or sexist material containing games.

Flash-game.net was chosen from dozens of sites offering browser-based games to present the games popular amongst casual gamers and independent producers. Browser-based games do not need to be installed into the computers hard disk. They are usually quite fast to get in with. Playing of these games do not usually require much of learning, but on the other hand they do not offer as versatile content as many downloadable games do. Browser-based games seldom offer hi-score lists, though some times the lists can be public – not limited to one computer, as the issue is with most of the console and

computer games.

There were about 2000 games available in flash-game.net during the research. The amount is so massive, that every game just could not be tested for understandable reasons. I chose 80 latest adds, about 100 games from the newer side of the middle of the site's gameID-sequence and 50 games with smallest gameID-numbers. By this I tried to build as heterogenous sample of flash-game.net's games without any of the genres to be biased too much because of temporary trends.

4.4.1. Genres of Flash-game.net

The material of flash-game.net is the most spread between the genres of all the materials in the research. Newer games include a couple of 3D-shooters and real-time strategies, but mostly games are relatively simple technically and audiovisually. The games were divided as follows:

Action 88 (31%)	Fighting 3 (1%)	Racing 5 (2%)	Shooter 45 (19%)	Sports 20 (9%)	
Adventure 13 (5%)	Puzzle 34 (15%)	Role-playing 4 (2%)	Simulation 2 (<1%)	Strategy 3 (1%)	Traditional 14 (6%)

Table 6: Flash-game.net's genre division

The balance of researched games is clearly on shooter and action games. Smaller genres like simulations, strategy games and role-playing games are typically games, which demand some more time to get in, and the players playing browser-based games do not necessary want to spend hours to learn to play a game. Another of the simulations is a make-up simulation, in which player must do a make-up resembling the model as much as possible in a given time limit. Another simulation is a game, where player throws a paper toll to bin, while a air fan disturbs the performance. It is important to notice, that

some of the most technically advanced and thus possibly most expensive games to develop on the site were real-time strategies – a genre not too often presented amongst browser games. This can predict a rising trust and interest towards browser based gaming.

The small group of adventure games consist of *Myst*-like point'n'click -puzzle adventures, but also of a joke game, where player tries to get a lady from a bar to his house. In that particular game player can not win. The small amount of fighting games can be caused by the surprisingly demanding technical implementation needed. Animating the character movements needs a lot of different animations and programming a decent fighting game engine is not nearly as easy as e.g. programming a sideways scrolling shooter.

The small amount of racing games is somewhat surprising. There is only one racing game, which is not driven by car. Rest of the games are about an average on technical and audiovisual way and there are also a couple of games made as commercial advertisements. Except a couple of other games, the sports games are quite evenly minigolfs, ping-pongs and games belonging to exotic *Yeti-sports* series. In *Yeti sports* the player tries to use the enormous muscle power of a snow man to get the penguin used as a game object to fly as far or as accurately as possible. The series is very well finished and it is very popular – perhaps because of it's anarchistic behavior.

Traditional games are mostly different card games or adaptations of casino games. Puzzles are divided evenly between time-related action puzzles and puzzles with no time restrictions. Amongst action puzzles there is a four part *Rumble Ball* series, which is almost a quarter of all action puzzles. Otherwise, the action puzzles do not resemble the match three -games popular in Gametunnel, but are highly varying on their gameplay. The situation is same with other puzzle games too. Besides memory games and some other old adaptations, the puzzle games are very unique and personal. There is a game of breaking into information systems, which almost could be put into simulations.

Seven of the shooters are games scrolling to some direction. The biggest single subgenre of shooters is single-screen shooters, where enemies or targets get out of a couple of constant hiding places. These games are closely related to light-gun shooters – this time the shooting machine is not a gun but a mouse. There are also many *Asteroids*-clones, violent-rabbit killing railshooter and some freely scrollable top-down shooters in the shooter genre.

There are many innovative productions in the biggest of flash-game.net's genres: action. For example in the *Le Boulanger* game player has to balance a French bread on the character's palm while avoiding some flying objects. Many of the action games are based on hitting one or two buttons as fast as possible, to for example blow up the game character before challengers character. There are only four *Breakout*-derivates, which is surprisingly small amount, and one of them is a parody, which actually can not be played. The biggest single subcategory is games, where player must collect and avoid different objects. Nearly always the objects fall down from the top towards the character at the bottom of the screen. There are 17 of this kind of games. Very large amount of action games are really hard, or even impossible to fit into any of the All Game Guide's action subgenres, so the count of action games is rather big, about 30.

4.4.2. Notes on Flash-game.net's games

The variety and amount of games available on flash-game.net is really big. Amongst thousands of games there are really amateurish games – for example scrollershooter *Adventures of Butt* (name tells everything). On the other hand there are really quality products, like racing game *Drifting Championship*, which has leagues players can set up with friends. That particular game is also an advertisement of X-Box -console, so it is relevant to ask if the game is independent at all.

The amount of violence is also noticeable. When comparing to other independent game sites, the games on flash-game.net are much more violent. Many games have a main

purpose of shooting people – often straight to the face and with a lot of blood. There is also a game, where the aim is to drive a school bus over escaping people. When all the people are a bloody red mess, a new screen is available with more potential victims. Without deeper analysis on the content of flash-game.net's games, the games do not seem to win non-independent action games in the graphical violence. Rarely do the shot or otherwise wounded characters stay on stage spilling their blood. Usually bodies just disappear.

4.4.3. Specialties of browser games

The browser based games can be very simple or even amateurish by their audiovisual appearance or technical implementation. The biggest reason for this might be the easiness of publishing. Even beginners can get their games to large audiences, a tiny piece of web server is all they need. There is always some kind of threshold on installing games into the hard disk, so potential bad quality is a good reason for disqualifying of the game. Browser games are easier to access and they do not leave any unwanted files laying on the hard disks, so even worse games can be tested and played for a while.

The games on flash-game.net are mostly made using Adobe's (formerly known as Macromedia due to some company shopping) Flash-technology. According to Adobe's own announcements, some of the newer versions of Flash-plugin is installed into nearly every internet-connected computer (Adobe, 2006). Flash plug-in is relatively small – which leads to fast start-up. This has made the plug-in extremely popular and thus has affected on the popularity of Flash as a game developer tool. Closest competitors of Flash - Java and Shockwave plug-ins are many times bigger than Flash and the start-up is also much slower. On the down side, both Flash and Shockwave have had very poor plug-in support for Linux. Additionally the authoring tools for Flash and Shockwave are quite expensive, which causes some controversy amongst hobbyists.

Flash is not good tool for all kinds of games. Its virtual engine processes game code hundreds of times slower than for example Java's. Before the version 8, there was no way to produce or manipulate bitmap images run-time. However, Flash is good instrument for many kinds of puzzles and shooters. Shockwave is strong on the easiness of authoring just as Flash, but it also has an integrated 3D-engine in the plug-in, though it is somewhat out dated.

Beside Flash and Shockwave, Java is very popular technology for making browser-based games. Java's strength is a powerful and versatile virtual engine, which makes it possible to produce realtime 3D-graphics for games. Java's security and data transfers are on totally different level when comparing to two others. Java has also been around for almost ten years and there are plenty of free development tools for it, so the user base has grown very large. Besides these three main technologies, there are plenty of other plug-in technologies, but their market share is a niche. Examples of those technologies could be PopCap's own plug-in, Alambik and Flatland's 3DML, of which only PopCap's technology is somewhat used.

There were clear trends on the types of the games in flash-game.net on different times. There are a lot of older games, where randomly appearing objects are shot or otherwise manipulated by clicking them. This type of games are easy to implement with Flash, and it was an example in one of older books about Flash game development. Amongst more modern games there are also similar trends, but it is hard to say how much impact manuals and other books have had on them.

Some of the older games are totally unplayable because of too much speed. In the first years of Flash, it was common to advice game makers to set the frame rate as high as possible, so the game execution would be smoothest possible. Flash technology tries to keep up on the set frame rate, but it does not skip any script or animation frames, if the execution of code suddenly takes too much time. During the time, computers and the efficiency of Flash-plugin have grown fast and due to that, the speed of older Flash games has grown too high. The same phenomenon can be seen on older PC games,

which rely on the execution speed of code rather than the system clock, on the issues of animation and game mechanics.

Lack of game saving, or at least the difficult implementation of it is a significant issue on browser based games. Great part of plug-in technologies do not allow anything to be stored or written on user's computer. In these cases the only possibilities for saving games are Javascript cookies or saving the game state on the server. These technologies are not very reliable, or they need a saving service on server, so saving is usually left out. Partly because of this there are not many role-playing games or other games with a longer focus span implemented on browsers.

4.5. Summary

There were 1100 games examined in this research. 300 of them were non-independent or semi-independent games chosen from *Pelit*-magazine as a comparison group. This group included only a few games available only as downloadables on the internet. Almost half of the other games were downloadable shareware games available on Gametunnel. Additionally there were 180 games from Suomipelit.com made by Finnish game makers, and 231 games playable on internet browser.

I tried to choose as comprehensive selection of different independent games as possible. There are some games making profit, some trying to make profit and also some with no profit in mind. The variety of game makers goes from professionals via semi-professionals to hobbyists and beginners. The distribution channel was also thought, so I have browser-based and downloadable games included. There are no retail independent games in this research. That is because of a small number of true independent games in the stores. Situation is changing, however. Recently I have spotted growing number of independent games on the retail store shelves, such as *Ragdoll Kung-fu* and *Darwinia*.

	Action	Fighting	Racing	Shooter	Sports		<i>Total</i>
Flash-game.net	88 (8%)	3 (<1%)	5 (<1%)	45 (4%)	20 (2%)		<i>161 (15%)</i>
Gametunnel	91 (8%)	0	6 (<1%)	46 (4%)	9 (<1%)		<i>152 (14%)</i>
Suomipelit.com	31 (3%)	2 (<1%)	8 (<1%)	70 (6%)	10 (1%)		<i>121 (11%)</i>
<i>Indies total</i>	210 (19%)	5 (<1%)	19 (2%)	161 (15%)	39 (4%)		<i>434 (40%)</i>
Pelit	69 (6%)	14 (1%)	24 (2%)	59 (5%)	23 (2%)		<i>189 (17%)</i>
<i>Total</i>	279 (25%)	19 (2%)	43 (4%)	220 (20%)	62 (6%)		<i>623 (57%)</i>

	Adventure	Puzzle	Role-playing	Simulation	Strategy	Traditional	<i>Total</i>
Flash-game.net	13 (1%)	34 (3%)	4 (<1%)	2 (<1%)	3 (<1%)	14 (1%)	<i>70 (6%)</i>
Gametunnel	0	181 (16%)	0	0	14 (1%)	42 (4%)	<i>237 (22%)</i>
Suomipelit.com	2 (<1%)	16 (1%)	10 (1%)	3 (<1%)	20 (2%)	8 (<1%)	<i>59 (6%)</i>
<i>Indies total</i>	15 (1%)	231 (21%)	14 (1%)	5 (<1%)	37 (3%)	64 (6%)	<i>366 (33%)</i>
Pelit	10 (1%)	4 (<1%)	34 (3%)	12 (1%)	50 (5%)	1 (<1%)	<i>111 (10%)</i>
<i>Total</i>	25 (2%)	235 (21%)	48 (4%)	17 (2%)	87 (8%)	65 (6%)	<i>477 (43%)</i>

Table 7: Overall genre division

From the summary we can clearly see the biggest game categories. Action, fighting and shooting games form about half of all games in combined results. Action and shooting games are very popular in every studied media, action being the larger one. Only in suomipelit.com the shooters overtakes action with over double of amount, making suomipelit.com the largest shooter provider despite of it's smallest overall size. The portion of fighting games is surprisingly small amongst independent games. About 5% of comparison group's games are fighting, while their share of independent games is less than one percent, and without Gametunnel's games, which have a zero-policy with fighting, it is just above one percent.

Amount of racing games is quite similar in all of the independent games sites, about 5%, while its share of *Pelit*-magazine's material is nearly 10%. With more detailed analysis we can find out that most of the comparison group's racing games are three-dimensional, viewed from behind the car, while most of the independent racers are show from top-down view and quite usually with fixed camera.

Simulations and strategies seem to be clearly more popular in comparison group than in the independent production. Suomipelit.com has a wider range of strategy and role-playing games than other independent sites. It is quite obvious that this is because of the implementation difficulties of long-term games for browsers. The games demand also

more time and focusing than so called casual games, which makes this kind of games rare amongst downloadable games too. Great deal of *Pelit*-magazine's role-playing games are massively multiplayerable on-line games, which are said to be some of the greatest engineering achievements in modern world, thus impossible to produce without massive amounts of work.

The popularity of the puzzle games targeted to casual-gamers in Gametunnel raises puzzle games the second largest game genre overall. Their share of all of the independent media is significantly larger than in comparison group. The situation is same with traditional games, which have much larger share on independent sites than on *Pelit*-magazine. Opposite situation can be seen on sports games, when Gametunnel stays clearly behind other media's 5-8% share.

When examining the results through Crawford's two-way taxonomy, the skill/action games take a slight win on overall calculations with their 57% share. Skill/action games make 63% part of comparison group's games, which is quite similar to other media than Gametunnel. The enormous amount of puzzle games in Gametunnel lowers the portion of skill/action games below 40%. I have to remind the reader about the possibility of different interpretations, because real time strategies and action puzzles belong to strategy and puzzle genres, which are parts of Crawford's strategy class. If these games were handled as skill/action games, would the percentages change a bit towards action/skills in all groups, but most on Gametunnel, where almost half of the puzzles are action puzzles.

4.6. Discussion on genre comparison

The quantitative genre analysis of game genres reveals a clear difference on ludological dimensions between independent and non-independent games. Most of the non-independent games use vagrant camera, 3D-scenery and mimetic simulation of time and space. This kind of games (first person shooters, 3rd person action. etc) are clearly a

minority among independent games. Gametunnel's downloadable games include a large amount of puzzle games, while puzzles were reviewed on *Pelit*-magazine for almost only for mobile devices.

One problematic issue with *Pelit*-magazine's games were those utilizing special controlling devices, like dance mats, Nintendo DS's touch screen, microphones etc. The special controllers seem to become more popular and so does the games using the alternative controllers. Including this kind of games into any traditional genre may do injustice to the meaning of these games to the development of gaming culture, but in this research, these games are put into action class. New controlling methods, like Nintendo DS's touch screen and Nintendo's new Wii -consoles position and place sensitive controls can cause some trouble with genre divisions in the future.

If it was possible to conclude something about the originality of games from the difficulty of placing them into genres, the independent games were very original compared to others. There were only a couple of games amongst *Pelit*-magazines material, which caused troubles on setting them to a genre which is not defined by the games themselves. This means games like *Sid Meier's Pirates!*, which combines adventure, strategy and action, *Worms*, which is often set into mutual Worms-like games, and *Sims*, which kind of defines the genre of artificial life simulations.

Another interesting point was that making the genre division became easier, when moving towards big budget games. There were many personal games in suomipelit.com and flash-game.net, which were really hard to set into any genre. Situation was much easier with Gametunnel's downloadable shareware games, and there were only few problematic cases in the *Pelit*-magazines material. This correlates with Greg Costikyan's opinion about the conservatism of game industry growing together with budgets (Appendix 1). It can be a familiar phenomenon with movie industry, where genre is used as a tool of marketing. It is easier to sell a product to the audience, when the product can be given a clear genre or two (Herkman, 2002, p.112).

Recycling of old ideas seem to be a trend with all, web based, retail store sold and downloadable casual games. When non-independent companies use the “90% old, 10% new flavor” -method to produce again and again the same first person shooter, racing game or third person action, casual games producers do lean to *Breakout*, *Diamond Mine* and *Zuma*, not forgetting the adaptations of old card- and board games. Great portion of other games rely strongly on old game ideas, but the connection or straight copying is not as obvious. Especially *Pelit*-magazine, Gametunnel and suomipelit.com have a lot of material which clearly utilizes ideas of other games amongst the same medium. There are a lot of tunnel flying and tunnel digging fighters in suomipelit.com, Gametunnel has many *Breakout* clones and match three -games. First person shooters and racing games are the most popular genres in *Pelit*-magazine.

When making conclusions, it has to be noticed, that the material of this research is made to work with Windows or MS-DOS operating systems, and for game consoles in the part of a comparison group. There are a lot of games available for Apple Macintosh and Linux, downloadable and on shop shelves. The game assortment for these platforms can be somewhat different from the material in hand, but it would not cause a noticeable change on the genre division. Most of the retail games are the same with Windows-environment and browser games usually work on Macintosh and quite often on Linux too. The games produced lately for the older machines, such as Commodore 64 and Amiga, are left out of this research. That part of the industry – retro games - is very interesting part of the independent game culture, but for practical reasons, the games have been left to wait for later examination.

5. Conclusions

The definitions of independent games and producers are highly varying, depending on the examination aspect. Most common criteria within game, movie and music industry was independence from big publishers. Independent in game industry was understood much stronger as a money and business related thing, than in e.g. music world, where independent is thought more as a stylistic aspect. Many actors in the game industry have called after the independent spirit, which can be seen in the movie industry.

The game producers can be categorized to three groups by using Merrit's (2000) thoughts: completely independent, semi-independent and non-independent producers. Thus, a classification based on financial aspects can be formed to game industry. What comes to artistic and innovative aspects, the concept of independence is more related to game itself than to the production of the game, which was the classification feature in the quantitative genre research.

Completely independent producers are instances, which do not have any kind of contract for the publishing or distribution of their game before the game is finished. This group includes basically all game making hobbyists and individuals or groups studying or starting up game production. The games are often released completely free from charge, as downloadable or browser based games. Occasionally the games can be distributed as shareware, when the player gets a small subset of game for testing, or a version that works for only an hour, after what the player has to pay the registration fee to continue playing.

Semi-independent group includes small game companies, which can gain a distribution contract for their game by a demo version of the game. These producers are not attached to a particular big publisher, but can negotiate the contracts for every game with different publishers. Semi-independently produced games usually end up in the retail

stores, but distribution via internet is possible and a growing trend.

Non-independent producers are large corporations, which are able to handle the whole production chain from ideas to production, marketing and distribution. These companies are usually referred to, when defining the dependencies of independent producers. According to Eskelinen (2005), 10 of the largest game companies control 67% of the game markets and those particular companies form the group of non-independent producers. These companies and their subsidiaries and possible rental teams are not allowed to compete in Independent Games Festival.

Unfortunately, even this division can not be thought as completely explicit. Many companies can be thought as semi-independent and non-independent. For example Matrix Games publishes a lot of strategy and simulation games from independent game companies, but is not counted as large corporation due to its significantly smaller size. This makes Matrix Games an independent producer, which also distributes games made by other companies. Distribution happens mainly on the internet, but some of the games are available on retail stores. Some people think that all companies making or trying to make some money with their games belong into semi-independent group, while completely independent producers are not trying to make any profit with their games. The question of companies like Remedy and Bugbear having dozens of workers and hundreds of thousands of euros as income belonging to the group of semi-independent producers is valid.

From the independence of game production we continue to the independence of games. In the quantitative genre research I compared independent games available in three different instances to games reviewed in Finnish *Pelit*-magazine. The comparison was made by dividing the games into typical game genres. The research reveals that independent games both are and are not different and innovative. Independent games do divide into genres very differently than the comparison group from *Pelit*-magazine. There are some differences between the genre division amongst different independent media. It seems that independent games share the hit game imitating problem with non-

independent games. A hit game is plagiarized until the players are completely fed up with it, or a new hit is released, thus possibly bigger revenues could possibly be made by copying it. Related to that, the game production becomes more free and innovative – possibly more anarchistic too – when moving towards smaller budgets and more hobbyist productions, since there are no

There are many games with independent spirit amongst non-independent games too. The innovations and free spirit is a part of the larger concept, while amongst independent games, the innovation can be the main point of the game. Balancing a French bread on a palm or pushing a ragdoll down the stairs could appear as small subgames of a non-independent game, but on the independent field, whole game can be based on this kind of idea.

The small market share and sometimes underground nature of independent games keep them out of non-gaming media's sight. While most of the gamers play non-independent games, there are thousands of small and artistic games that are leaved out of discussions when talking about games as hobbies, entertainment or culture. The discussion in media is biased, when only big game productions and games as a business are considered as the whole image of digital gaming scene. This affects on the opinions of large audience and has also effect on game theories, when large amount of original and sometimes thoughtful games are left out of discussions and researches. The game making hobbyist community is also very large and its effect on economy and entertainment industry has stayed in the shade of multi-million dollar productions and billion dollar companies.

It is relevant to expect more content from non-independent games. There are very few independent games having a total playing time of 15-50 hours, which can be expected from a big commercial game. On the other hand, many of the independent games are somewhat never ending processes, which can not be completed. Characteristic for the difference between independent and non-independent games is the time spent with a single game during the examination. About 300 independent games were test played during the research, but only a couple of dozen non-independent ones. Only reason for

this was that starting or downloading and installing an independent game took average of two minutes and figuring out the game mechanics took another minute or two. Downloading a demo of commercial game could take a couple of hours and a lot longer session of playing was needed to find out what the game was about. Because of this most of the genre divisions are made by the reviews.

6. Ideas for further research

The world of independent games turned out to be fertile and interesting subject for research. Additionally to the genres chosen for the topic of this research, it would be interesting to examine at least the gamer's attitudes to independent games and possibly examine more carefully, how do the game players figure the concept of independent games.

The inner thoughts of independent game makers would also be interesting area. Do the game makers see themselves as professionals, or are they just having fun in the spirit of hacker ethics. On my own part I could tell, that in the making of games and demos, the traveling is usually more rewarding than reaching the goal. The good feeling gained from ever continuing learning and problem solving can be dazzling. Overdrawing oneself and gaining respect from fellow hobbyists are important parts of non-professional game development.

The examination of education and knowledge base of hobbyist game makers could give some interesting results. Do the developers make their games with intuition and ad-hoc methods, or do they actively attempt to find out and learn new skills, so they could reach the goals more effectively. Some kind of comparison between independent developers and people working in the big companies on the field of knowledge and education could also be rewarding.

There were many ideas emerging during the research, related to game genres, general genre theory and demoscene. Another graduation thesis could be written on game genres, defining them more properly and exactly, and there really is not too much research made on artistic, serious and avant-garde anti-games.

References

Primary sources

Flash-game.net. “All games list”. On-line <<http://www.flash-game.net/online/online-games.php>>. Referred 29.11.2006.

Gametunnel. “Free game downloads”. On-line <<http://www.gametunnel.com/games/index.php>>. Referred 29.11.2006.

Pelit. 2004/8-2005/8. Vantaa: Sanoma Magazines Finland Oy.

Suomipelit.com. “Pelit”. On-line <<http://www.suomipelit.com/index.php?c=pelit>>. Referred 19.10.2006.

Print sources

Aarseth, Espen. 1997. *Cybertext: Perspectives on Ergodic Literature*. Baltimore and London: The Johns Hopkins University Press.

Aarseth, Espen & Smedstad, Solveig Marie & Sunnanå, Lise. 2003. ”A Multi-Dimensional Typology of Games” in Copier, Marinka & Raessens, Joost (eds.) *Level Up – Digital games research conference proceedings*. Utrecht: University of Utrecht, pp. 48-53. Also available online: <http://www.digra.org/dl/copy_of_db/05163.52481>. Referred 23.10.2006.

Altman, Rick. 1999. *Film/Genre*. British Film Institute

Bouncken, Ricarda B. & Müller-Lietzkow, Jörg. 2004. “Networks in transition. Changing asymmetries in the computer gaming industry”. On-line <<http://www.handels.gu.se/ifsam/Streams/pdi/212%20final.pdf>> Referred 20.11.2006.

Buscombe, Edward. 1970. “The Idea of Genre in the American Cinema”, *Screen* 11:2, pp. 33–45.

Caillois, Roger. 1957. *Man, Play and Games*. New York: Free Press Glencoe Inc.

Crawford, Chris. 1982. *The Art of Computer Game Design*. New York: McGraw-Hill/Osborne Media. Also available online: <<http://www.erasmatazz.com/free/AoCGD.pdf>>. Referred 11.3.2006

Epstein, Edward Jay. 2005. *The Big Picture : The New Logic of Money and Power in*

- Hollywood*. New York: Random House.
- Eskelinen, Markku**. 2005. *Pelit ja pelitutkimus luovassa taloudessa*. Helsinki: Sitra.
- Herkman, Juha**. 2002. *Audiovisuaalinen mediakulttuuri*. Tampere: Vastapaino OY.
- Herz, J. C.** 1997. *Joystick Nation: How Videogames Ate Our Quarters, Won Our Hearts, and Rewired Our Minds*. Boston: Little Brown & Co.
- Hillier, Jim (ed.)**. 2001, *American independent cinema*, London: British Film Institute
- Himanen, Pekka** 2001. *Hakkerietiikka ja informaatioajan henki*. Juva: WSOY.
[*Hacker Ethics – and the spirit of the information age*, 2000]
- Huhtamo, Erkki & Kangas, Sonja (ed.)**. 2002. *Mariosofia - Elektronisten pelien kulttuuri*. Helsinki: Gaudeamus.
- Huizinga, Johan**. 1938. *Homo Ludens: A study of the play-element in culture*. Boston: The Beacon Press.
- Juul, Jesper**. 2005. *Half-real: Video Games between Real Rules and Fictional Worlds*. Cambridge and London: MIT-Press.
- Järvinen, Aki**. 2007 "Game Genre framework: Mechanics and Dynamics meet Theme". Chapter of unpublished Doctoral Thesis Manuscript 'Games without Frontiers: Theories and Methods for Game Studies and Design'.
(See <http://www.gameswithoutfrontiers.net>)
- Kankaanranta, Marja & Neittaanmäki Pekka & Häkkinen, Päivi (eds.)**. 2004. *Digitaalisten pelien maailmoja*. Jyväskylä: University of Jyväskylä.
- Kent, Steven L.** 2001. *The Ultimate History of Video Games*. New York: Three Rivers Press.
- Lumet, Sidney** 2004. *Elokuvan tekemisestä*. Helsinki: Like. [*Making Movies*, 1995]
- Merritt, Greg** 2000. *Celluloid Mavericks*, New York: Thunder's Mouth Press
- McLuhan, Marshall**. 1969. *Ihmisen uudet ulottuvuudet*. 1964. Porvoo: WSOY.
[*Understanding Media: The Extensions of Man*, 1964]
- Negroponte, Nicholas**. 1996. *Digitaalinen todellisuus*. Keuruu: Otava. [*Being Digital*, 1995]
- Poole, Steven**. 2000. *Trigger Happy*. New York: Arcade Publishing Inc.
- Salen, Katie & Zimmerman, Eric**. 2003. *Rules of Play*. Cambridge: MIT-Press.
- Salen, Katie (ed.)**. 2005. *The Game Design Reader: A Rules of Play Anthology*. Cambridge: MIT-Press.

Swanson, Jane & Uhlmann, Eric. 2004. "Exposure to violent video games increases automatic aggressiveness", *Journal of Adolescence* 27, 41-52. Also available online: <http://scholar.google.com/url?sa=U&q=http://www.lionlamb.org/research_articles/study%25203.pdf>. Referred 20.11.2006.

Sutton-Smith, Brian. 1997. *The Ambiguity of play*. Cambridge: Harvard University Press.

Tasajärvi, Lassi. 2004. *Demoscene: the art of real-time*. Helsinki: EvenLakeStudios & katastro.fi.

Wolf, Mark. 2000. *The Medium of the Video Game*. Austin: The University of Texas Press. Chapter 6, "Genre and the Video Game" also available online: <<http://www.robinlionheart.com/gamedev/genres.xhtml>>. Referred 19.10.2006.

Wolf, Mark P. J. & Perron, Bernard (eds.). 2003. *The Video Game Theory Reader*. New York and London: Routledge.

Online sources

Adobe Systems Incorporated. 2006. "Adobe Flash Player Version Penetration". On-line
<http://www.adobe.com/products/player_census/flashplayer/version_penetration.html>. Referred 17.11.2006.

All Media Guide. 2006a. "About us". On-line
<http://www.allgame.com/cg/agg.dll?p=agg&sql=40:agg/info_pages/a_about.html>. Referred 4.11.2006.

All Media Guide. 2006b. "Game genres". On-line
<<http://www.allgame.com/cg/agg.dll?p=agg&sql=8:>>. Referred 4.11.2006.

AvantGaming. 2005. "Avant Game List". On-line
<<http://www.avantgaming.com/gamelist.html>>. Referred 20.3.2006.

BIFA. 2005. "Rules for The British Independent Film Award". On-line
<<http://www.bifa.org.uk/blurb.php?blurb=1>> Referred 18.3.2006.

Castronova, Edward. 2003. "On Virtual Economies", *Game Studies* 3:2. On-line
<<http://www.gamestudies.org/0302/castronova/>>. Referred 13.11.2006.

Chroniclogic. 2006. On-line <<http://www.chroniclogic.com/>> Referred 26.11.2006

- Costikyan, Greg.** 1994. "I have no words & I must design". On-line <<http://www.costik.com/nowords.html>>. Referred 2.3.2006.
- Costikyan, Greg.** 2005. "Death to the Games Industry: Long live the Games", *The Escapist* 8. On-line <<http://www.escapistmagazine.com/issue/8/3>>. Referred 18.3.1006.
- Dillon, Beth.** 2005. "Event Wrap Up - 2005 Indie Games Conference". in *Gamasutra*, 13.10.2005. On-line <http://www.gamasutra.com/features/20051013/dillon_01.shtml>. Referred 21.3.2006.
- EGP.** 2006a. On-line <<http://www.experimentalgameplay.com/>> Referred 18.3.2006
- EGP.** 2006b. "What is Experimental Gameplay Project". On-line <<http://www.experimentalgameplay.com/about.php>>. Referred 20.3.2006.
- ELSPA.** 2006. "ELSPA Members: complete lists". Entertainment & Leisure Software Publishers Association. On-line <<http://www.elspa.com/?l=members&display=members>>. Referred 18.3.2006.
- ESA.** 2006. "ESA Members". Entertainment Software Association. On-line <http://www.theesa.com/about/esa_members.php>. Referred 18.3.2006.
- Frasca, Gonzalo.** 2008. "My games". On-line <http://www.ludology.org/my_games.html>. Referred 19.2.2008.
- Gametunnel.** 2007. On-line <<http://www.gametunnel.com>> Referred 12.5.2007.
- IGF.** 2005." The Rules - IGF Main Category". Independent Games Festival. On-line <<http://www.igf.com/rules.htm>>. Referred 18.3.2006.
- IGJ.** 2006. "Indie Game Jam". On-line <<http://www.indiegamejam.com/>>.
- Indie-SIG.** 2006. On-line <<http://www.igda.org/indie/>>. Referred 18.3.2006.
- Järvinen, Aki.** 2002. "Halo and the Anatomy of the FPS". On-line <<http://www.gamestudies.org/0102/jarvinen/>>. Referred 18.10.2006.
- MacDonald, Dan.** 2005a. "Understanding 'Independent'". On-line <<http://www.gametunnel.com/articles.php?id=267>>. Referred 18.3.2006.
- MacDonald, Dan.** 2005b. "The Indie Ideal". On-line <<http://www.gametunnel.com/articles.php?id=266>>. Referred 18.3.2006
- MacDonald, Dan.** 2005c. "Do independent developers make indie games?" On-line <<http://www.garagegames.com/blogs/15718/9392>>. Referred 11.12.2007
- MadMonkey.** 2006."What is madmonkey?" On-line

<<http://www.madmonkey.net/page.cgi/about>>. Referred 18.3.2006.

Mönkkönen, Ville. 2006. On-line <<http://www.monkkonen.net/notrium.php>>. Referred 26.11.2006.

QOL-SIG. 2004. “Quality of Life in the Game Industry: Challenges and Best Practices.” IGDA Quality of Life -Special Interest Group. On-line <<http://www.igda.org/qol/whitepaper.php>>. Referred 10.12.2007.

Sundance. 2006. “Call For Entries Frequently Asked Questions”. Sundance Film Festival. On-line <<http://festival.sundance.org/2006CallForEntries/faq.htm>>. Referred 19.3.2006.

Taylor, Alice. 2005. “Burn The House Down – a transcript of a Game Developers Conference panel discussion”. On-line <http://crystaltips.typepad.com/wonderland/2005/03/burn_the_house_.html>. Referred 15.3.2006.

TEKES. 2006. a. “Introduction to Fenix-program”. On-line <<http://websrv2.tekes.fi/opencms/opencms/OhjelmaPortaali/Kaynnissa/FENIX/en/etusivu.html>>. Referred 22.3.2006.

TEKES. 2006. b. “Projects” On-line <<http://websrv2.tekes.fi/opencms/opencms/OhjelmaPortaali/Kaynnissa/FENIX/en/projekttilistaus.html>>. Referred 22.3.2006.

TIGA. 2006. “TIGA in 5 minutes”. The Independent Games Developers Association. On-line <<http://www.tiga.org>>. Referred 18.3.2006.

Valve. 2006. Steam service. On-line <<http://www.steampowered.com/v/index.php>>. Referred 20.11.2006.

Wikipedia. “Independent film”. On-line <http://en.wikipedia.org/wiki/Independent_film> Referred 19.3.2006.

Wikipedia. “Independent music”. On-line <http://en.wikipedia.org/wiki/Independent_music>. Referred 22.3.2006.

Wikipedia. “Classification of games”. On-line <http://en.wikipedia.org/wiki/Game_classification>. Referred 18.10.2006.

Wikipedia. “Computer and video game genres”. On-line <http://en.wikipedia.org/wiki/Computer_and_video_game_genres>. Referred 18.10.2006.

Wikipedia. “List of computer and video games by genre”. On-line
<http://en.wikipedia.org/wiki/List_of_computer_and_video_games_by_genre>.
Referred 18.10.2006.

Wikipedia. “Roguelike”. On-line <<http://en.wikipedia.org/wiki/Roguelike>>. Referred
26.11.2006.

WordNet Dictionary. 2007. On-line <<http://wordnet.princeton.edu/>>. Referred
10.12.2007.

ZIFF. 2005. “Rules & Regulations for the Zion Independent Film Festival”. On-line
<<http://www.ziffutah.com/ZIFF/rules.html>>. Referred 19.3.2006.

Zimmerman, Eric. 2002. “Do Independent Games Exist?” On-line:
<<http://www.ericzimmerman.com/texts/indiegames.htm>>. Referred 19.10.2006.

Games mentioned in text

Raid Over Moscow, 1984. Publisher: U.S. Gold. Developer: Access Software.

FlatOut, 2004. Publisher: Empire Software. Developer: Bugbear Entertainment Ltd.

Pogo Sticker, 2005. Developer: tAAt.

America's Army, 2002. U.S. Army

Stair Dismount, 2003. Developer: tAAt.

Truck Dismount, 2002. Developer: tAAt.

.kkrieger, 2004. Developer: .theprodukt.

Campus Territory, 2001. Developer: Jyväskylä University.

Wolfenstein: Enemy Territory, 2003. Developer: Splash Damage. Publisher:
Activision.

JFK Reloaded, 2004. Developer and publisher: Traffic games.

ALFA Antiterror, 2005. Developer: MiST land-South. Publisher: Strategy First.

Myst, 1993. Developer: Cyan Worlds. Publisher: Brøderbund Software, Inc.

Darwinia, 2005. Introversion Software Limited.

Rez, 2001. Developer: United Game Artists. Publisher: SCEI.

Alien Hominid, 2002 (Flash version). Developer: Behemoth.

Viewtiful Joe, 2003. Capcom.

Platypus, 2004. Developer: Retro64.

Facade, 2005. Developers: Michael Mateas and Andrew Stern.

Gish, 2004. Chronic Logic LLC.

Snowman in Hell, 2004. Developers: Tanja Bastamow, Miikka Junnila, Janne Kaasalainen, Miska Natunen, Jürgen Scheible.

Paper Mario, 2001. Developer: Intelligent Systems. Publisher: Nintendo.

FreeCiv, 1996. The Freeciv Project.

Steel Panthers: World At War, 2000. Matrix Games.

Operation Flashpoint, 2001. Developer: Bohemia Interactive Studio. Publisher: Codemasters.

Thief, 1998. Developer: Looking Glass Studios, Inc. Publisher: Eidos Interactive.

Arkanoid, 1986. Developer: Taito. Publisher: Romstar.

Breakout, 1976. Atari.

Tetris, 1985. Developer: Aleksei Pažitnov . Various publishers.

Pac-Man, 1979. Developer: Namco. Publisher: Midway.

Prince of Persia: Warrior within, 2004. Ubisoft.

Dead or Alive Ultimate, 2004. Developer: Team Ninja. Publisher: Tecmo.

Gran Turismo 4, 2004. Developer: Polyphony Digital. Publisher: Sony Computer Entertainment.

NHL 2005, 2004. Electronic Arts.

Alien Abduction, . Developer: Damon Pidhajecky. Publisher: Miniclip.

Doom 3, 2004. id Software.

Mech Assault 2, 2004. Developer: Day 1 Studios. Publisher: Microsoft Game Studios.

Civilization, 1991. MicroProse.

Warhammer 40,000: Dawn of War, 2004. Developer: Relic Entertainment. Publisher: THQ.

NHL Eastside Hockey Manager 2005, 2005. Developer: Sports Interactive Ltd. Publisher: Sega Europe Ltd.

Pacific Fighters, 2004. Developer: 1C: Maddox Games. Publisher: Ubi Soft Entertainment GmbH.

Sims 2, 2004. Developer: Maxis. Publisher: EA Games.

Crimson room

Legacy - Dark Shadows, 2004. Developer: Razbor Studios. Publisher: Tri Synergy,

Inc.

Fable, 2004. Developer: Lionhead Studios. Publisher: Microsoft Game Studios.

World of Warcraft, 2004. Developer: Blizzard Entertainment. Publisher: Vivendi Universal.

Mah Jongg

Pure Pinball 2.0 Redux – American Pinball Reborn, 2005. Developer: Iridon. Publisher: Fusion Labs.

Silent Hill 4, 2004. Konami.

Devil May Cry 3, 2005. Capcom.

Paper Mario: The Thousand Year Door, 2004. Developer: Intelligent Systems. Publisher: Nintendo.

Death by Degrees, 2005. Namco.

Anarchy Online: Alien Invasion, 2004. Funcom.

Pikmin 2, 2004. Nintendo.

Animal Crossing, 2001. Nintendo.

Trackmania Sunrise, 2005. Developer: Nadeo. Publisher: Digital Jesters.

Max Payne, 2001. Developer: Remedy Entertainment. Publisher: Gathering of Developers, Rockstar Games, Feral.

Max Payne 2, 2003. Developer: Remedy Entertainment. Publisher: Rockstar Games.

Rally Trophy, 2001. Developer: Bugbear Entertainment. Publisher: JoWood Productions.

The Reap, 1997. Developer: Housemarque. Publisher: Take 2.

Supreme Snowboarding, 1999. Developer: Housemarque. Publisher: Infogrames.

Shadowgrounds, 2005. Developer: Frozenbyte. Publishers: Plan 1, Meridian4.

Star Fight -series, 1996-2000. J-P Productions.

BlockoFighter, 2002. Sell, Miika, Kaarlas, Juha

Afrikan tähti, 1999. The Lost Spaceman of Refinition.

Pipe Mania, 1989. Developer: The Assembly Line. Publishers: Empire Interactive, LucasFilm Games, Bullet-Proof Software, Microsoft.

Bust-A-Move, 1994. Taito.

Q-lat, 1998. Piste Gamez.

Collapse, 1999. GameHouse.

Invataxi, 1994. Åkesoft.
Tokkobot DX, 2003. Jetro Suni.
Lemmings, 1991. Developer: DMA Design. Publishers: Psygnosis, Sunsoft
Gerbera Quarry, 2002. Mononen, Mikko.
Kumoon, 2005. Mayoneez and the Boyz.
Puupeli 1, 1998. Idle Productions.
Orbital Sniper, 2002. Jari Komppa.
Tapan Kaikki -series, 1999-2004. Error Free Productions.
Diamond Mine, 2001. PopCap Games.
Zuma, 2003. PopCap Gamesö.
Asteroids, 1979. Atari.
Dr. Blob's Organism, 2003. Developer: Digital Eeel. Publisher: Cheapass Games.
Lost Vikings, 1992. Developer: Silicon & Synapse. Publisher: Interplay Entertainment.
Marble Madness, 1984. Atari.
The Incredible Machine, 1992. Developer: Jeff Tunnell Productions. Publisher: Sierra On-Line.
Tanks Evolution, 2005. Realore Studios.
Rag-Doll Kung-fu, 2005. Developer: Qi Studios. Publisher Valve Corporation.
Sid Meier's Pirates!, 2004. Developer: Firaxis Games. Publishers: Atari, 2k Games, Valve Corporation.
Worms, 1995. Developer: Team 17. Publisher: Ocean Software:
Rumble ball. On-line <<http://www.Rubilon.Kulichki.com>>. Referred 22.6.2007.
Le Boulanger. Chavigny, Matthieu.

Technologies mentioned

Ogre3D, 2005-. The Ogre Team. On-line < <http://www.ogre3d.org/>>. Referred 22.6.2007.
SDL, 1998- On-line <<http://www.libsdl.org/>>. Referred 22.6.2007.
ODE, 2000-. Smith, Russell. On-line <<http://www.ode.org/>>. Referred 22.6.2007.
Adobe (Macromedia) Flash, 1996-. Adobe Systems (Macromedia).

Adobe (Macromedia) Director, 1988-. Adobe Systems (Macromedia).
The Games Factory, 1996. Clickteam.

Appendices

Appendix 1: E-mail interview with Greg Costikyan

Subject: Re: Graduation thesis about indie games

From: Greg Costikyan <greg@manifestogames.com>

Date: Mon, 09 Jan 2006 10:19:50 -0500

To: Jaakko Kemppainen <jakemppa@cc.jyu.fi>

At 08:40 AM 1/9/2006, you wrote:

> Hello, and sorry for the holiday delay (3 weeks at least :) . Here are couple of questions about indie games and development. I'd be very pleased if you could answer them briefly or lengthly, what ever suits you and feel free to correct my visions if there seems to be mistakes :)

>

> A) Indie definition

> I've been in trouble, because there are so many definitions for indie games. I think indie games could be divided to three categories, hobbyists, indies (got some idea from <http://www.gametunnel.com/articles.php?id=267>) and independent companies. Hobbyists are the ones, who like to make small games (web & downloadable) and proofs of concept. Indies are focused on complete games with marketing potential. Both hobbyists and indies are individuals or 2-4 person groups. Independent companies are companies which could attend to Independent Games Festival.

>

> 1. How do you think about this classification?

In industry nomenclature, and "independent developer" is any studio that is not owned by a publisher.

But obviously when =I= talk about "indie games," I'm not talking about games developed by the likes of Bioware/Pandemic, which are certainly developing at the scale (and expense) typical of the conventional game industry. I'm obviously thinking of more modest games--and in some cases, I would classify as "indie" games that are developed by smaller publishers (e.g., Stardock).

It's basically not a solvable definition, and the problem is shared by other industries, too. Is Dark Horse an "indie" comics publisher--or is it now large enough to be considered a

major in the same sense as DC and Marvel? Is Weinsteinco an indie movie house, or is \$1b in capital enough that you have to consider it as much of a major as Universal or Sony?

> 2. How do the companies making some coding or graphics for e.g. Electronic Arts, but are not owned by them, fit into indie scene?

I wouldn't consider them "part of the indie scene," but technically, if they are independently owned, they are "independent developers."

> B) Indie quality

> I've read from many different sources that independent games are innovative and refreshing. That may be true, but there still is huge amount of indie games just copying old ideas and still being played and sold. During my genre research, I found out that games rated in Finnish game magazine Pelit between 8/2004-8/2005 there were 140+ sequels and add-ons of ~300 games rated. It makes about half. And the launch games for Xbox 360, nearly all of them were sequels. While browsing some of the indie game sites (web&downloadable) the sequel rates are really different.

Sturgeon's Law applies. 90% of everything sucks.

> 3. In movies and music, the indie is usually described "you know when you see/hear". Gaming industry seems only one, which approaches indie mainly from the business point of view. Can you see there's movielike "indie spirit" in indie games? Do we need that kind of spirit?

I think it's starting to happen, and yes we need it.

> 4. Many of the true hits of gaming industry were innovative at their time (Civilization, Myst, Sims). The innovative ones might not sell well in the release quadrant, but they can continue selling moderately for years. This is no good in the eyes of investors sitting on the money chest. It seems that the innovation curve descends when budget curve ascends. With new consoles etc. this seems to be really bad thing. Do you think it's possible to keep the innovation curve high even if the budget raises? Is this where Manifesto games is at it's strongest?

No, increasing budgets breeds increasing publisher conservatism. That's why we need to break out of the trap the industry has set for itself, and yes, this is the core problem Manifesto hopes to address.

> 5. Wild guess, how long players are satisfied with old ideas and new graphics, as seen in big gaming industry? When the indie ideas are really going to break through the big audience, or are they?

I'm less concerned about reaching a market of 300k+ unit sales. What I want to do is build a way for people to succeed financially with games that sell in the tens of thousands of units. And eventually, someone working at this scale will hit on a novel game style that -does- have big appeal, and reach a break-out audience. E.g., I might argue that Katamari Damacy "broke through," in some sense--but by industry standards, it was not a big seller.

> C) Indie audience

>

> 6. *I think indie development and casual gamers are "a match made in heaven". How do you see the indie games hitting casual markets compared to common retail store business?*

I completely disagree. The casual game market is now even more stereotyped than the conventional games market. It's dominated by "pick three" puzzle games and word games. And the audience it caters to are not core gamers, not particularly sophisticated about games, and cannot provide the kind of enthusiastic fan base that makes independent film and music a success.

> 7. *Do you think the players of indie games are some way different than the people playing big commercial games? In movies and music, there is some sort of difference between Hollywood fans and indie fans. Of course, there are also people liking both.*

People who like independent film will watch Hollywood movies, of course--but the reverse is less true. IMO, players of "indie games" are the equivalent of cineastes or alt music fans--they're very knowledgeable about the form, and actively want something novel. It's a smaller potential market, but large enough, I believe.

> 8. *Modern game consoles are kind of entertainment centers of home. Web and downloadable games are coming to them. Do you think it is possible for indie developers to get their games into these new machines? I think consoles need more games, which can be played with many players and don't need much concentration (e.g. while drinking and lounging).*

To a degree, yes. Xbox Live Arena provides an opportunity.

> 9. *I skip mobile games in my thesis, but do you think there's something interesting going on there? At least now they really aren't utilizing the mobile/location aspect, just reproducing old games.*

See http://www.costik.com/weblog/2005_06_01_blogchive.html#111853031354495945

> 10. *I see browser games maybe most interesting thing in the future because of casual gamers. How do you see the business and other opportunities on browser games and how do they compare to downloadables or retail store games?*

Well, Runescape is a success. There are some problems, however:

1. Harder to get people to pay--people assume that online content should be free.

2. Easiest way to do this is with Java, but Windows no longer ships with a JRE, and many people don't have one installed.

> D) *Miscellaneous*

> 11. *Are you familiar with the demoscene or game programming competitions with e.g. limited size, theme or development time (indie game jam)? How do these affect on indie game industry?*

Sure. I don't think they've had an effect as of yet, except to the degree that some people in the industry look at them and maybe find some ideas to steal. And of course that it's a way to developing skills.

Appendix 2: All Game Guide's genre listing

ACTION

2D Action	3D Action	3D Platform	Action Adventure	Ball and Paddle
Interactive Screen Saver	Combat	First-Person Action	Fixed Screen Platform	Multi-Genre Action
Third-Person 3D Action	Maze	Miscellaneous	Multi-Game Compilation	Side Scrolling Platform
Stealth	Overhead View Action	Party	Side Scrolling Combat	

ADVENTURE

Action/RPG Adventure	First-Person Adventure	First-Person Graphic Adventure	Interactive Movie	Third-Person Graphic Adventure
Miscellaneous	Mystery Adventure	Survival Horror	Text-Based Adventure	

DEVELOPMENT TOOLS

2D Graphic Design	3D Graphic Design	Game Map & Scenario Editors	Web Design	Programming
-------------------	-------------------	-----------------------------	------------	-------------

EDUCATIONAL

Educational - General	General College	General Early Childhood	General Elementary	Writing
General High School	General Middle School	Geography	History	Typing
Interactive Book	Language	Math	Music	Test Preparation
Quiz Game	Reading	Science	Social Interaction	Sports Instruction
Spelling				

EMULATORS

Arcade Emulator	Home Computer Emulator	Miscellaneous Emulator	Video Game Console Emulator	
-----------------	------------------------	------------------------	-----------------------------	--

FIGHTING

2D Fighting	3D Fighting			
-------------	-------------	--	--	--

HOME

Art/Paint	Beauty and Makeover	Cooking	Crafts/Design	Productivity
Genealogy	Home Design/Improvement	Movies/Music	Personal Management	

PUZZLE

Action Puzzle	Adventure Puzzle	Maze Puzzle	Word Game Puzzle	
---------------	------------------	-------------	------------------	--

RACING

Aircraft Racing	Biking	Boat/Watercraft Racing	Demolition/Combat	Sports Car Racing
Drag Racing	Extreme Racing	Formula-1/Indy Racing	Futuristic Racing	Snowmobile Racing
Go-Kart Racing	Miscellaneous Racing	Mission-Based Racing	Monster Truck Racing	Running
Motocross	Motorcycle Racing	NASCAR/Stock Car Racing	Overhead View Racing	Rally/Off-Road Racing
Radio Control (R/C) Racing				

REFERENCE

Computer Hardware/Software	Dictionary	Encyclopedia	Historical Reference	Miscellaneous Reference
Maps				

ROLE-PLAYING

First-Person Action RPG	First-Person RPG	Isometric Action RPG	Isometric RPG	Third-Person 3D RPG
Miscellaneous	Persistent World Online RPG	Strategy RPG	Third-Person 2D Action RPG	Third-Person 3D Action RPG
Third-Person 2D RPG				

SHOOTER

First-Person Shooter	Fixed Screen Shooter	Overhead Free-Roaming Shooter	Platform Shooter	Vertical Scrolling Shooter
Shooter with Weapon Periphera	Side Scrolling Shooter	Squad-Based Shooter	Third-Person 3D Shooter	Vehicle Shooter

SIMULATION

Business Sim	Construction/Building Sim	Dancing Sim	Dating/Relationship Sim	World-Building Sim
Flight Combat Sim	Flight Sim	Giant Robot Simulation	Ground Vehicle Combat Sim	Sports Management Sim
Life Development Sim	Miscellaneous Sim	Musical Instrument/Band Sim	Naval Combat Sim	Space Combat Sim
Political Sim	Singing/Voice Sim			

SPORTS

BMX	Baseball	Basketball	Bowling	Wrestling
Boxing	Cricket	Darts	Dodge Ball	Water Skiing
Extreme Sports	Fishing	Football (American)	Futuristic	Volleyball
Gliding/Parachuting	Golf	Hockey	Horse Racing	Track & Field
Hunting	Ice Skating	Inline Skating	Lacrosse	Tennis
Miniature Golf	Miscellaneous Sport	Multi-Sports	Olympics	Swimming
Pool	Rugby	Shooting	Skateboarding	Surfing
Skiing	Snowboarding	Soccer		

STRATEGY

2D Real-Time Strategy	2D Turn-Based Strategy	3D Real-Time Strategy	3D Turn-Based Strategy	Empire-Building
Persistent World Online RTS	Action Strategy			

TRADITIONAL

2D Pinball	3D Pinball	Board Game	Card Game	Tile Game
Jigsaw Puzzle	Gambling	Game Show	Trivia Game	Miscellaneous Game

UTILITY

Art & Imaging	Desktop Themes	File Management	File Transfer Utilities	Zip/Compression Tools
Operating System	Screen Savers	Security	Server Locators	Sound & Music

X/ADULT

Adult Action Game	Adult Board Game	Adult Card Game	Adult Casino Game	Adult Text-Based Adventure
Adult Game Show	Adult Graphic Adventure	Adult Interactive Movie	Adult Miscellaneous	Adult Sports Game
Adult Movie	Adult Puzzle Game	Adult Screen Saver		

Appendix 3: Terminology and definitions

Collapse – Game, where player clicks groups of three or more similar game items to make them vanish. Other game items on the screen collapse to fill the holes.

Demoware – a freely distributed version of commercial program, which is limited on time or amount of use before software refuses to work.

Developer – an individual, group or company which does the implementation of the game. Developer produces all the graphics, sounds and program code needed for the game and puts them together as a functional product.

Distributor – company that gets the game media (CD-ROM etc.) from the publisher and delivers it to retailers.

Freeware – programs which are free to use without any costs. Not to be mixed with *free software* -movement, in which the word free should be understood as “libre”, but rather as free from cost. Sometimes users are asked to send postcards, donate money for charity, or other ways to show their gratefulness of the program. These methods are sometimes called as *cardware*, *donationware* etc.

Hex-mapping – A tiled gamespace, which is based on hexagonally divided plane, which resembles a “honey comb” -structure. The advantage of hex mapping versus regular square mapping is that the distance between two adjacent hexagon centers is equal, while square map has different distances laterally (1) and diagonally ($\sqrt{2}$).

Indie – commonly used term for independent games, films and music.

Match-3 games – A puzzle game type, where player's mission is to align three or more similar game items to gain points.

Publisher – an instance that makes a game available for audiences. Publisher acquires the game from the developer and either makes it available for consumers in the internet or retail or deals it forwards to distributors or retailers.

Roguelike - Roguelikes are originally games which happen in a dungeon which is presented using the basic textual screen (ascii-graphics). Game character is usually seen as @-character and the monsters are shown as different letters. These games are turn-

based, they look games, but can offer surprisingly deep gaming experiences. More information can be found, for example from Wikipedia (Wikipedia, “Roguelike“) or from roguelike.net.

Shareware – programs that are usually distributed as somewhat limited edition (e.g. one episode of a game) for free, but can be updated to full version with some kind of payment. The program can be used unlimited times, but it has only limited amount of features.

Wikipedia - a dictionary written and updated by active users and readers. The main idea behind the Wikipedia is free editing of the information, which should lead to good accuracy and objectivity through iterating the data. Wikipedia is now days very commonly used source for information, at least among people living and working with information technology and internet, so it should be noticed at least as an heuristic source. The problem with Wikipedia is the iterative nature of the information. Same article can have totally different content half years later – as was seen during the writing process of this research. During summer and autumn 2006 there were also numerous incidents where the material in Wikipedia was edited to affect on people's opinions on certain things.

Appendix 4: Development budgets and times of IGF finalists

These numbers were collected from the Independent Games Festival's Winners and Finalists -pages in the autumn 2006. In May 2007, they were no longer available. When asked from IGF's office, they agreed that information has been available, but was removed during the site's renewal.

Game	Budget	Development months
BaseGolf	0	1
Furcadia	50000	60
Mr. Bigshot	87000	24
Pontifex 2	3000	3
Reiner Knizia's Samurai	250000	14
Strange Adventures In Infinite Space	1000	6
Teenage Lawnmower	1000	8
Terraformers	40000	18
Wild Earth	5000	5
Word Ninja	0	12
Anito: Defend A Land Enraged	70000	22
Spartan	80000	8
Bontãgo	79000	7
Savage: The Battle for Newerth	1000000	24
Dr. Blob's Organism	1000	3
Oasis	80000	10
Yohoho! Puzzle Pirates	700000	24
Steer Madness	10000	24
Alien Hominid	1300000	24
Gish	5000	8
Global Defense Network	500	18
Wik and the Fable of Souls	350000	6
RocketBowl	100000	16
N	3000	1

Appendix 5: Games of quantitative research

Pelit-magazine

Ace Combat: Squadron Leader
Act of War: Direct Action
Alexander
Alien Hominid
Alpine Skiing 2005
Altered Beast
American McGee's Scrapland
Anarchy Online: Alien Invasion
Animal Crossing
Animaniacs
Area 51
Arena Wars
Armies of Exigo
Astro Boy
Atlantis Evolution
Axis & Allies 2
Backyard Wrestling 2: There Goes the Neighborhood
Bard's Tale
Baten Kaitos: Eternal Wings and the Lost Ocean
Battlefield 2
Beyond Divinity
Blitzkrieg: Rolling Thunder
Blood Will Tell
BloodRayne 2
Boiling Point: Road to Hell
Bombastic
British Airports, vol. 6
Brothers in Arms: Road to Hill 30
Burnout 3: Takedown
Call of Duty: Finest Hour
Call of Duty: United Offensive
Capom Fighting Jam
Catwoman
Celtic Kings: The Punic Wars
Champions: Return to Arms
Championship Manager 5
Chris Sawyer's Locomotion
Chronicles of Riddick: Escape from Butcher Bay - Developer's Cut
City of Heroes
Close Combat: First to Fight
Codename: Panzers
Cold Fear
Cold Winter
Colin McRae Rally 2005
Concorde Professional
Conflict Vietnam
Constantine
Cossacks II: Napoleonic Wars
Counter Terrorist Special Forces: Fire for Effect
Counter-Strike: Source
Crash 'n' Burn
Crash Twinsanity
Crimson Tears
Crisis Zone
Dance: UK XL
Dancing Stage Fusion
Dark Fall 2: Lights out
Darwinia
Dead or Alive Ultimate
Dead to Rights 2: Hell to Pay
Deadhunt
Death by Degrees
Def Jam: Fight for NY
Delta Force: Black Hawk Down
Demon Stone
Devil May Cry 3
Dj: Decks & Fx
Donkey Kong Country 2
Donkey Kong: Jungle Beat
Donkey Konga
Doom 3
Doom 3: Resurrection of Evil
Dragon Ball: Advanced Adventure
Empire Earth 2
Enigma
Enthusia Racing
ESPN NBA 2K5
ESPN NFL2k5
ESPN NHL 2k5
Eve Online: Exodus
EverQuest II
Evil Genius
EyeToy: AntiGrav
EyeToy: Monkey Mania
EyeToy: Play 2
F/A-18 Operation Desert Storm
Fable
FIFA Football 2005
FIFA Street
Fight Club

Fight Night Round 2
 Final Fantasy XI Online
 FlatOut
 Football Manager 2005
 Ford Racing 3
 Formula One 04
 Formula One 2005
 Forza Motorsport
 Freedom Force vs The 3rd Reich
 Full Spectrum Warrior
 Gary Grigsby's World at War
 Get on Da Mic
 Getaway: Black Monday
 Ghost in the Shell: Stand Alone Complex
 Ghost Master
 Ghost Recon 2
 God of War
 Golden Eye: Rogue Agent
 Gran Turismo 4
 GTA: Grand Theft Auto - San Andreas
 GTR
 Guild Wars
 Half-Life 2
 Halo 2
 Hamtaro Ham-Ham Games
 Haunting Ground
 Headhunter: Redemption
 Hearts of Iron 2
 Hidden & Dangerous 2: Sabre Squadron
 Hidden Stroke: APRM
 Hot Wheels Stunt Car Challenge
 House of the Dead III
 Ice Hockey Club Manager 2005
 Ihmeperhe
 Immortal Cities: Children of the Nile
 Imperial Glory
 Jade Empire
 Jak 3
 Joint Operations: Escalation
 Joint Operations: Typhoon Rising
 Kessen III
 killer7
 Killzone
 King of Fighters: Maximum Impact
 Kingdom Under Fire: The Crusaders
 Knights of Honor
 Kohan 2: Kings of War
 Kult: Heretic Kingdoms
 La Pucelle Tactics
 Legacy - Dark Shadows
 Legend of Kay
 Legend of Zelda: Four Swords Adventures
 Legend of Zelda: The Minish Cap
 Lego Star Wars
 Leisure Suit Larry: Magna Cum Laude
 Lemony Snicket's A Series of Unfortunate Events
 LMA Manager 2005
 Lord of the Rings: Battle for Middle-Earth
 Lord of the Rings: The Third Age
 Madden NFL 2005
 Mario Party 6
 Mario Power Tennis
 Mashed: Fully Loaded
 Matrix Online
 MechAssault 2: Lone Wolf
 Medal of Honor: Pacific Assault
 Mega Man X8
 Megaman X: Command Mission
 Men of Valor
 Mercenaries
 Metal Gear Solid 3: Snake Eater
 Metroid Prime 2: Echoes
 Midnight Club 3: DUB Edition
 Mortal Kombat: Deception
 MotoGP 4
 Mr. Driller: Drill Spirits
 MX vs ATV Unleashed
 Nanobreaker
 NARC
 NBA Live 2005
 NBA Street v3
 Need For Speed Underground 2
 Neo Contra
 Nexus the Jupiter Incident
 NFL Street 2
 NHL 2005
 NHL Eastside Hockey Manager
 NHL Eastside Hockey Manager 2005
 Obscure
 Oddworld Stranger's Wrath
 Otogi 2: Immortal Warriors
 Out Run 2
 Outlaw Golf 2
 Pacific Fighters
 Painkiller: Battle Out of Hell
 Paper Mario: The Thousand-Year Door
 Pariah
 Pathway to Glory
 Phantom Brave
 Pikmin 2
 Polarium
 Pop Life
 Port Royale 2
 Prince of Persia Warrior Within
 Pro Evolution Soccer 4
 Project Rub
 Project Zero II: Crimson Butterfly Director's Cut
 Project: Snowblind
 Psi-Ops: The Mindgate Conspiracy
 Psychotoxic
 Punisher
 Pure Pinball 2.0 Redux - American Pinball Reborn
 Ratchet & Clank 3
 Red Dead Revolver
 Resident Evil 4
 Resident Evil: Outbreak
 Richard Burns Rally
 Robotech: Invasion
 Robots
 Rollercoaster Tycoon 3

Rome: Total War
 RTL Skijumping 2005
 Rumble Roses
 S.C.S. Dangerous Waters
 Sacred: Underworld
 Saga of Ryzom
 Scaler
 Second Sight
 Sega Superstars
 Settlers: Heritage of Kings
 Shadow Hearts: Covenant
 Shark Tale
 Shellshock Nam '67
 Sherlock Holmes: The Case of the Silver Earring
 Shining Force: Resurrection of the Dark Dragon
 Shining Soul II
 Sid Meier's Pirates!
 Silent Hill 4: The Room
 Silent Hunter III
 Silent Storm: Sentinels
 Sims 2
 Sims 2: Yliopisto
 Singstar Party
 Ski Racing 2005
 Sly2: Band of Thieves
 Soldiers: Heroes of World War II
 Spider-Man 2
 Spikeout: Battle Street
 Spitfire
 Splinter Cell: Chaos Theory
 Spyro: Hero's Tail
 Star Fox: Assault
 Star Ocean: Till the End of Time
 Star Wars Episode III: Revenge of the Sith
 Star Wars Galaxies: Jump to Lightspeed
 Star Wars Republic Commando
 Star Wars: Battlefront
 Star Wars: Knights of the Old Republic II - The Sith Lords
 Star Wolves
 Still Life
 Sudeki
 Suffering
 Suikoden IV
 Super Monkey Ball Deluxe
 Superpower 2

SWAT 4
 SVC Chaos: SNK vs. Caom
 Syphon Filter: The Omega Strain
 Tales of Symphonia
 Tekken 5
 Tenchu: Fatal Shadows
 The Battle of Bull Run Take Command: 1861
 The Moment of Silence
 This Is Football 2005
 Tiger Woods PGA Tour
 Tiger Woods PGA Tour 2005
 TimeSplitters: Future Perfect
 TOCA Race Driver 2 Ultimate Racing Simulator
 Tom Clancy's Rainbow Six 3: Black Arrow
 Tony Hawk's Underground 2
 Total Club Manager 2005
 Trackmania Sunrise
 Tribes Vengeance
 TT Superbikes
 Two Thrones: From Jean D'Arc to Richard III
 U-Move Supersports
 UEFA Champions League 2005
 Ultima Online: Samurai Empire
 Ultimate Traffic
 Unreal Championship 2: The Liandri Conflict
 Urbz: Sims in the City
 Vampire the Masquerade: Bloodlines
 Warhammer 40K: Dawn of War
 Wario Ware Inc.: Mega Party Game\$
 Wario Ware Touched!
 Vietcong Purple Haze
 Viewtiful Joe
 Viewtiful Joe 2
 Will of Steel
 World of Warcraft
 World Snooker Championship 2005
 Worms - Forts Under Siege
 WRC 4
 Wrestlemania 21
 WWE: Day of Reckoning
 WWE: SmackDown! vs RAW
 X-Men Legends
 Yoshi Touch & Go
 Zoo Keeper
 Zoo Tycoon 2

Suomipelit.com

A2 - The Ultimate Sequel to AUTS
Action Point
Afrikan Tähti
Aleshar: The World of Ice
APT
Areena 5
Assault Trooper
ATA - Extracts from the American Civil War
Attack
AUTS
Beerworm
Beez
Bikez
Bikez II
Blight Warrior
BlockoFighter
BoaBite 3D
BOFH: Servers Under Siege
BoulderMania
Box Mania
Boxed
Brixor II
Capman
Capsule
CigWorm
Creators
Crimsonland
Cyber Antero
Dark War II
Death Rally
Delirium
deLuxe Moposota
Deluxe Ski Jump
Deluxe Ski Jump 3
Down By The Laituri
Duck Mr Duck
Emancy: The Revenge of Tamanduas
Enigma
Erkki Saarella
EräJorma - Kalastus
EräJorma - Metsästys
Falcon's Eye
Farmi
Fight 2
Final Duel
Final Duel 2 - Deathmatch Arena
Final Sieni
Formido
Free Combat
Fuse
Futis
GeneRally
Gerbera Quarry
Gormless Bubbling
Great Nations
Haluatko miljonääriksi
Helherra
Hemohe's World Championship 2001
Holiday Serpent
Hotel Markets
Hurvana 3
I Have No Tomatoes
I've Got Some BALLS!
Invatxi
Iron Birds
Isowiha
Iter Vehemens ad Necem
Javelin 2000
Joe
Just An Other Space Shooter
Just Another Worms Clone
KaBoom
Kasino 2000
Kiihdytyspeli
Killer 18
KoiraTappelu 2: Taistelumme
Kommando Rusinat
Kops
Korona
Kumoon
Lada - The Ultimate Challenge
Lada -79 - PETROSKOI
Liero
Light Warrior
Luola
Maagi
Magebane 2: Trinity
Maschinengewehr 42
MClone
Mempuz 2
Mercenary Sniper
MHM 2000
Mine Bombers
Minigolf Forever
Miniwar
Molez
Netto
NeuralPlay
Notrium
Operation Cleaner

Orb Wars	StarFight III: Within the Darkness
Orbital Sniper	StarFight IV: Legacy - Ihmiskunnan Perintö
Orvelot	StarFight V: Hell's Gate
Pac Brothers	StarFight VI: Gatekeepers
Pakoon! v1.ONE	Starshift
Pakoon! v2.Many	Tankwar NET
Paliroid	Tapan Kaikki 4: Bloodshed
Parawormer II	Tappo 2 for Windows
Payback Time 2	Tappo Tactics
Pekka Kana	Taso
Pekka Kana 2	Telamiina
Phobia 2	TerraScape: Breakdown Velocity
Phobia III - Edge Of Humanity	Tetris
Pikku-ukot mesoo	The Breakdown - A Snack-Sized Adventure Game
Piranha	The Eskimo Fishing Trip
Pizzaworm	The Forge
Plurtsis	The Ultimate Cave Flier
Pokeri	Threat
Porrasturvat - Stair Dismount	Tokkobot DX
PP 2	Tomaattisota
Pro Pilkki	Triplane Turmoil
Putkikoira Alberto	Tunnels of the Underworld
Puupeli	Turbis
Puupeli 2	Turbo Ball
Q-Lat	Turbo Sliders
Q-Lat 2	Ufohippa 2
Rally-Sport	Ultimate Steroids
Rekkaturvat - Truck Dismount	Ultimate Tapan Kaikki
Rocket Chase	UnReal World
Ryssän kauhu	Upotus
Sanastus	V-Wing
ShortHike	War
SimpleWar	War II: Das Schlachtfeld
Ski Jump International 3	Wazzal
Slicks 'n' Slide	We Got Explosives!
Snowman In Hell	We Got Explosives! 2
Son of the Finn	Wham!
Space Station Manager	Wings
Spruit	Volcano 2
Star Wrek	Yatzy

Gametunnel

5 Card Slingshot
5 Spots
5 Spots II
ABC Island
Absolute Blue
Action Ball Deluxe
Action Memory
Adventure Ball
Adventure Inlay
Adventure Inlay: Safari edition
Age of castles
AirStrike II
AirStrike II: Gulf Thunder
Alien Abduction
Alien Defense
Alien Outbreak 2: Invasion
Alien Shooter
Alien sky
Aloha Solitaire
Aloha Tripeaks
Alpha Ball
Amazon Quest
Ancient Seal
Animals of Africa
Anime Bowling Babes
Ant War
Aqua Bubble
Aqua Bubble 2
Aqua Pearls
Aqua Pop
Aqua Slider
Aqua Words
Aquabble Avalanche
Aquacade
Aquatic of Sherwood
Arcalands
Arctic Quest
ArkLight
Asea
Asianata
AstroAvenger
Astrobatics
Atlantic Lighthouses
Atlantis
Atomaders
Avalanche
Ball 7
Ballistik
Barnyard Invasion
Battle Castles
BattleShip Chess
BeeLine
Beesly's Buzzwords
Beetle Bomp
Bejeweled 2 Deluxe
Best Gift
Betty's Beer Bar
Big Kahuna Reef
Big Kahuna Words
Bistro Stars
Blox World
Bombard Deluxe
Bonnie's Bookstore
Book Bind
Boulder Dash Treasure Pleasure
Brave Dwarves 2
Brave Dwarves Back For ...
Brave Piglet
Break Ball 2 Gold
Bricks of Atlantis
Bricks of Camelot
Bricks of Egypt
BrixFormer
Brixout XP
Brixquest
Bubble Ice Age
Bubblefish Bob
Bud Redhead: The Time Chase
Bugatron
Butterflight
Buzzy Bumble
Cactus Bruce and the Corporate...
Caramba
Carl The Caveman
Carl's Classics
Castle of Cards
Chainz
Charm Solitaire
Charm Tale
CheboMan
Chessmaster Challenge
Chicken Village
Circulate
Clash N Slash
Coffee Tycoon
Cookie Chef
Cosmic Bugs
Crime Puzzle
Crimsonland
Crusaders of Space: Ope...

Crystalix	Gem Shop
Dark Archon	Genius Move
DDD Pool	Geom
Deep sea adventures	Global Defense Network
Deep sea tycoon	Glow Worm
Deep sea tycoon 2	Gutterball 2
Desperate space	Gold Miner
Diamond drop	Gold Miner Joe
Digby's Donuts	Gold Miner Special Edition
Digipool	Gold Miner: Vegas
Diner dash	Gold Sprinter
Docker Sokoban	Golden Dozen Solitaire
Double Digger	Golf Adventure Galaxy
Dr. Blob's Organism	Granny In Paradise
Dr. Germ	Gravity Drive
Dragon ball	Gravity Gems
Drop	Grump
Drop 2	Gunner 2
Drophead	Hamster Blocks
Dungeon Scroll Gold Edition	Hamsterball
Electra	Hang Man Wild West 2
Electric	HangStan Trivia
Elythril: The Elf Treasure	Hard Rock Casino
Enchanted Forest	Heavy Weapon
Evil invasion	Hexalot
Fairies	Holiday Express
Fairy words	Hyperballoid
Fatman Adventures	Hyperballoid Complete
Feed the Snake	Hyperspace Invader
Feeding Frenzy	Ice Breaker
Fiber Twig	Icy Spell
Fiber Twig 2	Incadia
Filler	Invadazoid
Fireworks Extravaganza	Jeez
Fish Tales	Jets N Guns
Fish Tycoon	Jewel Quest
FishingTrip	Jezzonix
Five Card Deluxe	Jig Words
Flip Words	Jigsaw365
Flying Doughman	Jungle Heart
Flying Leo	Kick Shot Pool
Fresco Wizard	Last Galaxy Hero
Froggy Castle 2	Legend of Aladdin
Fruit Lockers	Lemonade tycoon
Full Circle	Lemonade tycoon 2
Funkiball Adventure	LexiCastle
Funky Farm	Live Billiards
Funny Creatures	Lucky Streak Poker
Fusion	Luxor
Gamehouse Sudoku	Machine hell
Gamehouse Word Collection	Mad Caps
Gamino	Mad Cars
Garfield Goes to Pieces	Magic Ball
Gekko Mahjong	Magic Ball 2
Gem Mine	Magic Gem

Magic Inlay	Reaktor
Magic Vines	Real Ball
Mah Jong Adventures	Real Jigsaw Puzzle
Mah Jong Medley	Redisruption
Mah jong quest	Ricochet Lost Worlds
Mahjong Holidays 2005	Ricochet Xtreme
Mahjong Mania Deluxe	Ricochet: Recharged
Mahjong Towers Eternity	Riotball
Mahjong Towers II	Rival Ball Tournament
MaxGammon	River Raider II
Memory Loops	Rocket Bowl
Mind Machine	Rocket Mania Deluxe
Mind Your Marbles	Rotate Mania Deluxe
Mind Your Marbles Christmas Ed...	Runic one
Mini Golf Pro	Sea War: The Battles 2
Mirror Magic	Secret Chamber
Moleculous	Serpengo
Mortimer and the Enchanted Castle	Shape Solitaire
Musikapa	ShapeShifter
Mutant Storm	Shoot-n-Roll
Mystery Case Files: Huntsville	Shroomz
Napad	Sky bubbles deluxe
Naval Strike	Slickball
Navigatrix	Slingo Casino Pak
Oasis	Slingo Deluxe
Ocean Diver	Slot Words
Off Road Arena	Slyder Adventures
Orbz	Snail Mail
Outpost Kaloki	Snow Ball
PacQuest 3D	Snowy Puzzle Islands
Paradoxion	Snowy the Bear's Adventures
Passage 3	Snowy: Space Trip
Pastime Puzzles	Snowy: Treasure Hunter
Pat Sajak's Lucky Letters	Snowy: Treasure Hunter 2
Pharaohs' Curse Gold	Soda Pipes
Pingo Pango	Solitaire
Pirates of Treasure Island	Solitaire 2
Pizza Frenzy	Space Skramble
Platypus	Space Taxi 2
Plummit	Speed
Poker Superstars Invitational Tournament	Spellagories
Professor Fizzwizzle	Spellunker-Ace's Aztec Adventure
Psychoballs	Spin & Win
Pulsarius	Splash
Puzzle Blast	Spongebob Collapse
Puzzle Express	Sportball Challenge
Puzzle Myth	Spring, Sprang, Sprung
Puzzle Word	Star Defender 2
Q'Bicles	Strike Ball
R.I.P.	Strike Ball 2
Race Cars The Extreme Rally	Subway Scramble
Rainbow Drops Buster	Super Bounce Out
Rainbow web	Super Collapse
Rally Racers	Super collapse 2
Reader's Digest Super Word Power	Super Cubes

Super Glinx	Truffle Tray
Super Groovy	Tumble Bugs
Super mahjong	Turtle Bay
Super Popcorn Machine	Turtle Odyssey
Super Text Twist	Twinxoid
Superstar Chefs	Twistingo
Swap & Fall 2	Universal Boxing Manager
Swarm	Valentine's Gift
Tablut	War chess
Tanks Evolution	Warblade
Team Up	Warkanoid 2
Telltale Texas Hold'Em	Varmintz Deluxe
Tennis titans	Water Bugs
Texas Hold 'Em Championship	Weave Words
The Cursed Wheel	Wik and the Fable of souls
The Emperor's Mahjong	Wild West Wendy
The Great Mahjong	Virticon Millennium
The Lost City of Gold	Void War
The Walls of Jericho	Wonderland
Theseus: Return of the Hero	Wonderland Secret Worlds
Think Tanks	Word Blitz Deluxe
Thomas And The Magical Words	Word Craft
Time Breaker	Word Emperor
Top 10 Solitaire	Word Harmony
Totem treasure	Word Jong
Tradewinds 2	Word Search Deluxe
Tradewinds Legends	Word Slinger
Traffic Jam Extreme	Word Wizard Deluxe
Treasure Fall	Xeno Assault II
Treasure Machine	Xmas Bonus
Trijinx	Zam BeeZee
Triptych	Zero Count
Trivia Machine	Zulu Gems
TriviaNet Challenge	Zuma
Troll	Zzed

Flash-game.net

3 Card Poker	Chocolate factory
3 Lines	Christmas Adventure
3D tunnel	Christmas Attack
3D worm	Christmas Shooting
4 Ball Pong	Claque Beignet
A-Blast	Coco Shoot
Ace Blackjack	Connect 2
Acorn toss	Cook a Turkey
Addiction Puzzle	Counter Punch
Adventures of Butt	Crab Race
African Mask	Crazyball
Air Ball	Croustibat
Air Patrol	Crystal Craft
Alloy Arena	Cubefield
Alpha force	Cursor Game
Ants	Cyber Slots
Art of War	Darkness 1
Artificial Beauty	Death to Ninja
Arty alien shooter	Demonic defence 4
Babycal Throw	Divine intervention
Ball trap	Dragon gordy
Ballistic Biscuit	Dragonfly
Balloon Duel	Drifting championship
Basket Shooting	Dynasty street
Bat in Nightmare	Dynasty Warriors
Bean Hunter	Eater
Billiards	Egypt Puzzle
Bingohtrail	Fables en Vrais
Bird Flu	Fallout
Black knight	Fighting Game
BlackJack	Fish Eat Fish
Blade of Innocence	Fisherman sam
Blob 2	Flash Crisis
Bloomin' gardens	Flash Halo
Blue Tongue	Flash poker
Board'n	Flash strike
Boat Hunt	Flash tiles
Bomber Fortress	FlashBlox
Boogle Killer	Flower power
Booty Call	Fred's Adventure
Bouncy the ball	From space
Boxteroid	Funky Pong
Break It	Furbies Attack
Bubbles	Furr twins
Bullet dodge	Gangstas
Bump copter 2	Gauntlet
Bumper ball	Gaz Ball
Candy Machine	Get Flippy
Caribbean Poker	Ghost wrath
Catch the fly	Gina Lash
Check Point Delta	goomalane
Chicken Road	Grand Roulette

GTO Redemption	Ping pong turbo
Gunny Bunny	Pingo
Hacker	Pixel Field
Heavy Metal Girl	PMG Racing
Hellfire	Pogo
Hot Shots	Poom
Inspector Wombat	PoPoint 2
Jamaican dominoes	Present Panic
Jewel Thief	Princess Maker
Juice Squeezer	Queen for Ikambokem
Jungle escape	Quick Draw
Kcly Diamond	Raiden X
Keno	Reaktor
King of Skeleton	Redneck Shoot Out
King of the hill	Rings
Kore Kart	Robocop
Lamer Hunter	Rumble Ball 1
Le Boulanger	Rumble Ball 2
Legend of PingPong	Rumble Ball 3
Legend of Zelda	Rumble Ball 4
Let's Bake	Rush Hour
Love Story	Sammy the salmon
Luna Hotel	Save The Goldfish
Ma balls	Security
Magical stars	Sewer Surf
Major MADness	Sexy Card Match
Make'em Sleep	Sexy Slots
Makeup Game	Shanghai Dynasty
Making Christmas Tree	Sheep reactions
Memory 2000	Shit Street
Minesweeper	Shock Pool
Mini Nitros	Short bus rampage
Mini Putt	Sinjid
Mini Putt 3	Snow Ball
Missile Attack	Snowman Salvage
Missile strike	Sober Santa
Mo Fro	Solitaire
Monster Sandwich	Space cowboy
Multiplication	Space DX
My Diamond	Space Out
My Leaves	Spank The Monkey
My Pie	Speed Maya
My Planet	StarCraft FA 2
Naked Melee	StarCraft FA 3
Naruto Bankai	Starfrosch 2
Nemo's revenge	Starwars
Nightmare Escape	Stick RPG Combat
Ninja reincarnation	Sumo Soccer
Obsolete	Super Mario TE
Old West	Table Football
Pacman	Take to Street
Panda Golf 2	Tank
Panic Pro	Tankopter
Paper throw	Terrain
Pearl Hunt	The Box 3
Pee ball	The Santa Game
Penalty Shootout	The waitress
Perfect Match	The Wand House
Pikachu Must Die	The Viruz
Ping Pong 3D	The Worker

Udder madness
Undead Assault
Wheels of salvation
White Lymphocyte
Word Safari

Yeti Snowball
Yeti sport 4
Yeti sport 5
Youdaffly
Zelda lampshade