"Have Fun Working with Our Product!": Critical Perspectives On Computer Game Mod Competitions

Olli Sotamaa
Researcher
Hypermedia Laboratory
33014 University of Tampere
tel. +358 3 215 8510
olli.sotamaa@uta.fi

ABSTRACT

This paper suggests that the digital games industry products are not limited to games-related hardware and software or the related spin-off industry products. Further, consumers "labour" with games is transformed into a product that is sold to advertisers and sponsors. In case of gamer-made modifications, this commodification of leisure is taken into extreme. It is obvious that the cultivation of unpaid modder labour necessitates different methods than the traditional forms of labour. It is suggested that mod competitions are used as a strategy of control over the hobbyist developers. Through competitions modders become interpellated as important members of the industry and simultaneously end up surprisingly comfortably harnessed. Finally, the paper suggests that the competitions that offer an attractive means to monitor the mod scene, paradoxically also work against industry's advantages by revealing the laborious nature of computer game development to the hobbyists.

Keywords

Mods, modders, mod competitions, game industry, political economy, free labour

INTRODUCTION

The digital games market of today is highly competitive and increasingly oligopolistic with a few global hardware manufacturers, game developers and publishers dominating the market. Digital games played on computers and modern game consoles are getting increasingly complex and today the development of a single game can require investments of several million dollars. At the same time a growing number of gamers is willing to create games of their own using the existing games software. These hobbyist developers, called 'modders' have been around for some time now, but only during the past few years the 'mods', the products of 'modding' culture, have attained the mainstream. This gamer-made content is normally distributed for free from players to players but lately gamer-made modifications have found their way to game industry marketing strategies.

Elsewhere I have argued that modders themselves are far from a homogeneous group [14]. Already in case of a single computer game, modder identities construct a wide spectrum based on differences in such factors as motivation, experience, skills and social organization. My preliminary classification of motivations identifies five key approaches: playing, hacking, researching, artistic work and co-operation. Although the grouping of motivational factors clearly helps to clarify the diversity of modder practices, the research also highlighted that in order to fully understand the frame where modders exercise their agency it is important to identify the particular industrial context – including both the possibilities and the limits it constitutes.

Following Eileen R. Meehan, I suggest that in this connection political economy has a significant contribution to offer to fan ethnography. While fan ethnographers traditionally study the activities and handcrafts of self-aware subcultures that appropriate and rework mediated ideologies, political economists focus on activities and structures that generate these ideologies. While fans in one sense 'resist' the dynamics of entertainment industry by using corporate media for their own purposes, in the same time they paradoxically form a group of 'ideal consumers'. Not only can their consumption habits be highly predicted but they are also likely to remain stable. [11, see also 5]

The contemporary game cultural analyses seldom pay attention to the fact that the origins of 'leisure time' are rooted in capitalist regimen of work. Already the representatives of Fordist industrialism realised the human need to recover from work and attacked that inefficiency by granting leisure time. However, this leisure time is not insulated from capitalism because through the commodification of leisure the recovery time is transformed into consumption time. From the games perspective this means that more and more the objects and interactions linked with playing are commoditized into goods and services. In other words, above all games are an industry that manufactures and markets commodities. Furthermore, today computer games are a multi-billion dollar business, selling experiences and entertainment to global market. However, the game industry actions are not limited to direct production and selling of games. Also consumers "labour" with games is transformed into a product, namely the audience commodity. [11] Selected game audiences and target groups are delivered to advertisers through such strategies as product placement.

If we now take a look at mods, we find the commodification of leisure time taken to another level. Game hobbyists work voluntarily to develop products for other hobbyists, fans and casual players to consume. Although the modifications are often downloaded for free from the Internet, game industry is still able to get its share, since the gamer needs to have a copy of the original game software installed on his/her hard drive in order to run modifications. Furthermore, high-standard mods can significantly increase the shelf-life of a game. This is highly important since at least so far game industry has remained mostly incapable of creating similar diversified revenues as film industry has in home video market and television distribution. Mods can also increase customer loyalty which correspondingly can be seen to boost the selling of expansion packs and sequels.

The focus of this paper is on the strategies game industry uses to motivate, encourage and persuade hobbyists to keep on producing the free content that obviously benefits the industry. I attempt to outline some features of contemporary game industry that have a direct influence on the current status of mod phenomenon. Mod contests organized by industry are used as an

example that helps to go deeper into the relation of mod maker motivations and game industry objectives. I suggest these contests are an important testing ground and area of experimentation where game industry puts the potentials of free modder labour to test. The websites, rules and advertising of different contests can be used to examine how modders are addressed in this process. Finally, the paper contemplates the question of 'labour' that has so far been in a relatively marginal role in game studies. My intention is to elaborate the recent discussion around "free labour" and link it to practical examples from recent mod competitions.

GAME INDUSTRY PERSPECTIVES

The recent success of game industry has led to a situation where processes familiar from other branches of entertainment industry are imported and adopted to consolidate game industry practices. Media conglomerates recycle and repackage contents from one medium to another and construct secondary markets and product lines tied to successful game titles. Once the successful formula is found game sequels follow each other and massive spin-off industries are organized to produce everything from board games and trading cards to t-shirts and coffee mugs. [5] According to Kerr [7] game industry is characterized by high costs of production and relatively low costs of reproduction. The costs of large-scale productions are continually increasing and this tends to lead to such oligopolistic structures where few global companies are dominating the market. [see also 8]

The creation of games software is often divided into three phases: development, publishing, and distribution. Briefly, the development stage includes the design and implementation of the code. Publishing consists of manufacturing, packaging, and promotion of the game commodity. Finally, distribution involves delivering the games to the retailers and other outlets. [8, p. 176] However, game making is not that simple. Developers, publishers and distributors cannot always be easily distinguished. Game publishers are often critical to the development since they can guarantee the necessary financing and marketing and ultimately they also control which projects end up in the consumer market. Furthermore, so called super developers like Electronic Arts can perform all of these activities and thus publish their own products.

While the console manufacturers strictly control which games are licensed for their machines, the more open PC platform offers at least a bit more possibilities for niche-markets and small-scale enterprises. Thus, although simple level and character editors have lately become more common also in console games, the majority of hobbyists tinkering is focused on PC games. The historical perspective helps to understand some of the popularity of gamer-made designs. Some twenty years ago any player with reasonable technical literacy was able to code games of his/her own. Therefore the boundary between designer and player is not always clear-cut. From the early stages of PC gaming, computer networks have had a significant impact on the emerging gaming cultures. Not only are gamers using local LANs and the Internet to join forces and race against each other, but today you can find a vast number of websites and online forums dedicated to the most obscure games ever made.

Although there is no simple way to estimate the exact scale of modder cultures or their significance for the game industry it is clear that at least some PC game developers substantially benefit from the mod makers' work. Popular mods can help to better understand the player preferences and this information can be used both in advertising and further design activities. When commercialising popular mods, companies do not have to create the brand from the scratch but the masses of players already recognise the game. Furthermore, modding community

is both a source of innovation and a recruitment pool for the industry. [9]

The rapidly increased significance of game modifications has inspired game industry to develop various means of support and control over modder productions. Some of these are straightforward regulations that define the legal boundaries while others can be seen as more subtle attempts to influence modder practices. Game developers and distributors organize and maintain websites that enable gamers to get detailed information of the games, to discuss with other gamers and to share gamer-made contents. Companies also employ 'community managers' who scour the net and collect feedback, comments and ideas from consumers. The modding tools developed and distributed by the companies themselves can be used as an example of more mod-specific method of regulation. Effective and easy-to-use tools can boost and accelerate the creation of fan-based content. Further, as Mactavish [10] points out, official modding tools often make mods look, sound and feel like the original game. The continuity of visual and other elements is ensured by supporting only certain kinds of features and objects. Of course, modders can also use other commercial programs or software developed by other modders. One of the participants in my earlier modder interviews listed more than fifteen different applications he single-handedly used in editing the game content. However, this requires advanced skills and lots of experience. Thus, as Mactavish continues, modding tools can work as gatekeepers that limit modifications to certain areas.

One important aspect that distinguishes game industry from some other branches of entertainment industry is that it has been able to develop such revenue and distribution models that are able to tolerate free game content next to chargeable one. Already in the early 80's some of the hobbyist programmers decided to distribute their PC programs freely, asking for a modest donation from users who found the software useful. This new method of distribution and marketing brought significant incomes to individual software developers but the attempts to produce shareware games were mostly unsuccessful until Scott Miller of Apogee Software popularised a method of breaking an action-adventure game up into episodes. The shareware version of a game included the first few levels but the additional levels had to be purchased from the software publisher. [2] In context of this article, the shareware model has a twofold significance: first of all, hobbyists developers could fairly easily form small cottage industries since they did not have to deal with retailers and distributors. Secondly, shareware introduced both to gamers and to the industry a successful business model where free game content operated side by side with chargeable one. Today, the legacy of shareware is most obviously visible in free "playable demos" that have become a game industry standard. The primary function of the demos is to tempt and convince gamers even before the finished title hits the stores. Interestingly, mods seem to complement the distribution model by offering free content also after consumers have bought the retail title.

WHAT ACTUALLY IS PRODUCED?
It is often proposed that computer games, as a recognized form of new media, are actively blurring the lines between production and consumption. Mod phenomenon that exposes the industry co-operation with hobbyists and actively reconfigures the territory between work and leisure is often used model example. The problem in formulations of this kind is that they often assume there actually is – or once was - a moment when we are able to distinguish producers from consumers with relative ease. As we noticed earlier, it is not that simple to distinguish production from other phases in the life of games. It seems that we face the same problem when trying to define 'consumption'. It is difficult to indicate precisely, where consumption starts and

where it ends? As we see in connection to Johnson's famous circuit of production, circulation and consumption of cultural objects, it is important to "grant independence first to each moment, rescuing them from the imperialism of others". However, the separation is done in order to avoid determinism and is mainly analytical in nature. Johnson himself is eager to remind that the moments are not all that distinct. He argues that actually production should be treated as a feature of each moment. Texts and cultural moments can be "productive" or in other words, have a capacity to produce. Therefore readings, or in our case playings, should be treated as processes of production where the product becomes a raw material of new meanings. [6]

If we now take a look at political economy approach we see that actually the whole question of production and consumption seems profoundly complex:

> "One might argue, in fact as Marx did in the *Grundrisse*, that consumers produce themselves in the process of consumption. Alternatively, on might say that consumers produce the symbolic value (or meaning) to media products (or texts) as they consume them. One could go on – producers consume resources in the process of production. They also distribute by virtue of their reputation as producers." [12]

Following Marx, we can say that production and consumption are 'directly co-incident'. Since production includes the use of raw materials and individuals consuming their abilities, there is a kind of consumption inside production. In the same sense we can find production inside consumption: consuming food, for example, can be seen as the means for producing, or reproducing one's physical existence. Furthermore, Marx adds the relation of 'mutual dependence'. This means that neither consumption nor production is able to exist or achieve its result without the other. Consumption 'produces' production in two different ways. First, every product is finally 'realized' in the act of consumption. Secondly, consumption also creates the need for 'new production'. Correspondingly, production participates in producing consumption. Production both furnishes consumption with its object and specifies the 'mode' of consumption. Furthermore, according to Marx, production is not limited to the production of objects but it also produces the need that is satisfied with object. [3]

An important part of industrial production is the reproduction of the means and the agents of production. I will here focus on the reproduction of productive forces and the especially the issue of labour power. In his influential "Ideological State Apparatus" essay Althusser argues that the function of ideology is to reproduce the social relations of production. Obviously, reproducing labour does not mean only biological or technical reproduction, but at least as importantly social and cultural reproduction. What this means is that skilful and technically competent labour is not enough but as importantly it has to be politically subordinate and subjected to the ruling ideology. Althusser argues that in capitalist social formations 'cultivating' labour of certain cultural and moral kind takes increasingly place outside the firm. For example institutions like schools and universities have a significant role in educating labour suitable to the modern capitalist mode of production. [1, 4] A contemporary example can be found in the ways colleges and universities hosting game design programs often collaborate with local developers in order to guarantee the latest knowledge on area but also to facilitate the recruitment of students.

Some of the mod makers have a formal education in programming or graphic design but even then the advanced modding skills are learned by doing, by discussing the problems on online forums and by following the online tutorials made by other modders. This 'semiclandestine' area that attracts those interested in playing, programming and hacking games has existed in different

forms at least from the times of the electronic bulletin boards. [8] Obviously workers who acquire their skills and attitudes this way cannot be controlled the same way as the more traditional types of labour. However, game industry has demonstrated that they are not completely at a loss. Such quite recent examples as Mod College by Westwood Studios and Unreal University by Epic Games and North Carolina State University show that game developers are willing to take over the education market, as far as they can reach the pick of the hobbyists. In these cases the loyalty of successful mod groups is increased by inviting them to participate tutorials and share their ideas with company representatives.

In case of game industry professionals the reproduction of labour is ensured by wages. Clearly this cannot be the case with mod makers who seldom benefit financially from their work. In he following we take a closer look at one noticeable strategy of control over the hobbyist developers, namely mod competitions that compensate the lack of wages with the possibility of gaining some fame and even fortune.

MOD COMPETITIONS

The game publishers have lately been eager to use mods for promotional purposes and to bring fan cultural petty productions from the "subcultural shadows" to the "mainstream light". [15] In order to direct amateur's productive activities, companies organize competitions for mod developers. Mod competitions exist in different levels. In case of Make something Unreal Contest organized by Epic Games and Nvidia the total value of prizes exceeds one million dollars. At the other end small fan contests hosted by hobbyist websites offer little or no prizes but can receive relatively much attention in fan circles.

If we look at high-profile competitions, they offer considerable prizes and significant publicity opportunities for winning mod groups. What organizers and sponsors expect to get, is at least some good publicity and possible increase in the sales of the original game, but obviously there are further benefits. Already competition rules are utilized to direct the hobbyist creativity by defining what is suitable and fitting and what is clearly prohibited. The rules often mention that the entries are expected to conform to the very restrictive End User License Agreements (EULAs) included with the retail titles. The exact formulations of the license agreements vary but typically they include a subsection where the intellectual property rights of all mods are guaranteed to the game developer. If we think of the amount of work and passion a high level mod takes to be completed, the rigid license agreements appear increasingly questionable. Therefore, the competitions seem to serve as a countercheck to legitimise the exploitation. With few exceptions, competition organizers once more explicitly reserve the rights to publish the contest entries. As the rules of The Valve Half-Life 2 Map Contest quite clearly state:

> "By accepting a prize, each winner grants Valve the royalty-free, fully-paid, worldwide, irrevocable, nonexclusive, perpetual right to exploit the intellectual property rights in the Contest Entry, including without limitation, at Valve's option, distributing the Contest Entry to the public commercially or for free."[1]

The further benefits of competitions include building and maintaining a lively contact to the mod community. Understanding the routines and detailed problems modders encounter can provide valuable help for mod support development. Competitions can also have a practical aim to guide

---

[1] http://www.steampowered.com/?area=map_contest_rules

the actions of mod community. An illustrative small-scale example of this can be found in Operation Flashpoint: Mission Editing Competition. A competition launched by Bohemia Interactive in June 2004 was directed especially to mission makers – "a highly skilled but diminishing section of the community"[2]. The advertisement text for the contest highlights the importance of mission makers in poetic fashion: "If addon/mod creators are the body of the Flashpoint community then mission creators are the very necessary blood." This choice can be interpreted in at least two ways. First of all, the decision to focus on mission making can be read as a democratic move. Making innovative missions does not require expensive commercial software packages or expert knowledge on programming languages and therefore the competition is at least theoretically accessible for a broad audience. A bit different intentions become exposed if we look at the competition from the developer point of view. At the time the number of hobbyists working with OFP mission editing had been constantly decreasing for some time. From the company perspective this can be seen as a significant problem since even the most sophisticated add-ons are unlikely to find their way to the hands of "casual gamers" without high-quality missions. Therefore, what the competition is expected to do is to refuel the production of missions that are needed to highlight the possibilities of the game engine and the outputs of the add-on community.

Finally, the competitions can be seen as a forum where game developers can express their gratitude to modders. Interestingly, even this can be elegantly transformed into advertisement slogans. In a recent interview, Epic Games Vice President Mark Rein stated the following:

> "If you one (sic) UT2004 you really need to download the latest versions of these mods and check them out. If you don't own UT2004 you should go out and get it because, with all the content we put into the game and with these FREE mods available, it is by far the best value in computer gaming that I'm aware of..."[3]

Although, this statement is mainly addressed to "casual gamers" interested in mods, there is obviously another message directed to mod makers. The developer acknowledges that the success of the game is partly attributable to mod makers. What happens here, in Althusserian terms, is that modders become interpellated as important members of the industry. Now if we look at the interview with some members of the Make Something Unreal Contest winners we can see that the ideological lesson has been more than a success:

> "If you buy UT2k4, you will get access to a gazillion very different games, great value for your money."[4]

In the following we move on to examine in more detail how modders actually end up addressed as free labour that can be surprisingly comfortably harnessed.

CULTIVATING FREE LABOUR

Thus far we have found that the reasons for the rise of mod phenomenon are complex and sometimes contradictory. From the perspective of theories on post-industrial work, the utilization of mods by commercial developers can be seen as a consequence of concrete changes in the global economy [13]. It is claimed that the creative industries of late capitalist societies are

---

[2] http://www.bistudio.com/
[3] http://dx.ampednews.com/?page=articles&id=9179
[4] http://unreal.boomtown.net/en_uk/articles/art.view.php?id=7514

increasingly dependant on voluntary activities. According to Terranova the unwaged labour we witness in post-industrial societies is at least partly a result of process where workers are constantly addressed as active consumers of meaningful commodities:

> "Free labor is the moment where this knowledgeable consumption of culture is translated into productive activities that are pleasurably embraced and at the same time often shamelessly exploited." [16, p. 37]

As we have seen, in connection to computer games this 'free labor' creates significant value by actively discussing their experiences in electronic forums, updating thousands of websites, teaching each other valuable skills and producing games of their own. These activities are important not only because they offer support and useful tips for other players but also because they participate in generating the important sense of community among players. Thus, it is not reasonable to claim that all these hobbyist actions are in any clear cause-and-effect fashion produced by the industry. As discussed earlier, the cultivation of this kind of labour necessitates new methods. A brief examination of mod contests indicates that the role of gaming press is quite significant in this process. Not that much money is used in straightforward advertising of competitions but the press releases are actively cited on game magazines and websites. Publications like Computer Games Magazine ensure continual coverage for gamer-made projects and annually award best modifications. Every now and then, award-winning mods can be found next to playable demos and trailer movies on the DVDs delivered with PC game magazines. All this takes part in building a glamorous image for mods. Furthermore, the fan sites actively adopt gaming press traditions. Mods are reviewed (and increasingly previewed) and appreciated mod team members are interviewed. Often fan sites also seem to adopt the celebratory marketing ethos typical of contemporary gaming press. Symptomatically, when a hobbyist-driven site that hosts a variety of mods recently released a competition of their own, the bulletin started with following words:

> "Modding has taken the world by storm, it is now a great way to get into the world of game design. No longer do you need to have 'real life' experience in game design to get a job, most developer's are even picking up talented modders straight from the scene. This is where the Levels4you Max Payne 2 modding competition comes in."[5]

Today, an increasing number of game industry professionals have a background in mod community. It is profitable to hire highly trained specialists who have already shown their abilities in mod projects. From this perspective the mod contests appear as a perfect channel for recruitment. The developers do not need to observe the messy hobbyists forums but they can simply ask the international fan base to send their best works to be evaluated.

As anyone who has played just about any game or competitive sport for an extensive period of time knows, playing is not always fun. On the contrary, gaming is often frustrating, irritating and boring and most of all - laborious. However, if we take a look at game marketing and promotion we see that the industry works very hard to obliterate perceptions of this kind. In his important paper Julian Kücklich [9] suggests, that game industry clearly "benefits from the perception that everything to do with digital games is a form of play, and therefore a voluntary, non-profit-oriented activity". Addressing modding as an extension of play helps to justify the contemporary economic structure in which companies can decrease their risks by transforming parts of the

---

[5] http://www.levels4you.com/community/max2comp/comp.l4y

development tasks to the hobbyists. Commercial developers are free not only to choose the most successful mod community projects for further development and distribution but also able to pick the most skillful self-trained specialist for potential recruitment.

One visible consequence of competitions is professionalization of modding. Award-winning mods require larger teams, more time and tighter regime. Paradoxically the same competitions that offer an attractive means to monitor the mod scene, work against industry's advantages by revealing the laborious nature of computer game development to the hobbyists. However, it seems that some modders are still able to see the benefits, although they recognize the amount of hard work included:

> "I also think a lot of individual Mod-ers have gained good experience with working in a deadline tight environment, it pushes you to your limits, and should be a nice preview on what you can expect when you want to work in the industry."[6]

DISCUSSION

Mod Contests produce a competitive setting where the merits of an individual modder team are evaluated in comparison to handiworks of other teams. While it is too early to say anything definite, this setting has a potential to work against such prevailing mod cultures that often remain faithful to open source ethos. It is not uncommon that modder teams pool their resources in order to produce something that can benefit the whole community. Often the modifications are built on creative use and reworking of earlier modifications. Mod community members also often participate in the development by beta testing other people's mods and writing extensive bug reports. What happens to this participatory culture if a mod team actually benefits from not publishing anything before the deadline?

An interesting point of comparison to mod contests can be found in the emergence of professional gaming. As any traditional major league sport, professional gaming attracts notable sponsorships. Thus while players can earn significant sums of money from the tournaments organized for example by Cyberathlete Professional League (CPL), top players and teams can also expect to obtain notable sponsorship deals. Since major mod competitions also typically attract sponsors, it is arguably just a matter of time when we start to find sponsorships of successful teams on the modding front. This leads us to ask, what will then happen to those individual specialists that enjoy circulating from a mod project to another?

Some of the ambitious mod community projects actually follow quite advanced and disciplined strategies very similar to those of game industry professionals. As one of the participants in my interviews stated:

> We communicate via e-mail and ICQ, we have FTP with a structure that allows us download "tasks" (for me these are models) and upload finished work (textures). I also participate on overall design of the mod, make some promotional graphics shown at forums and discuss other people's work. Of course, I have access to betas, this means lotta playtesting.

The methods are often quite professional with differentiated expertise and sophisticated tools. Some mods even have license agreements of their own that define the appropriate use of the hobbyist made piece of software. Modifications produce unique experiences that cannot be fully

---

[6] http://unreal.boomtown.net/en_uk/articles/art.view.php?id=7514

returned to the features of the original game. Since mods also generate large-scale fan following, it is actually increasingly difficult to indicate the clear-cut distinction between games and modifications. This notion is further supported by the fact that today many successful commercial games are based on licensed game engines that are originally developed by other companies.

As I have discussed elsewhere, applying fan theory to mod phenomenon has its challenges [14]. While fan research can produce detailed understanding of the aspects related to community and empowerment, it runs into difficulty when discussing recruitment and other forms of financial compensations hobbyists are able to collect. Emphasizing the meaning of resistance and appropriation can simplify the complex relations between expression and entertainment industry. On the other hand, emphasizing the political economy perspectives, that have the power to explain the complex economic structures, can lead to disregarding the pleasures and motives of mod makers. As I have tried to demonstrate, game industry has a variety of means control and manipulate modder actions. However, first of all mod makers are certainly not entirely vulnerable and secondly one of the reasons why modding remains fascinating for hobbyists, is exactly the close co-operation with industry.

REFERENCES

1. Althusser, L. "Ideology and Ideological State Apparatus (Notes towards and Investigation)" in *Lenin and Philosophy and Other Essays*. NLB, London, 1971, pp. 121-173.
2. Hague, J. "Gimme Your Money: A Half-Baked History of Shareware", *Loonygames*, vol. 1, issue 24, 1999. Available: http://www.loonygames.com/content/1.24/feat/
3. Hall, S. *Marx's Notes on Method: A 'Reading' of The '1857 Introduction'*. Working Papers in Cultural Studies 6. Birmingham, 1974.
4. Hall, S. "Signification, Representation, Ideology: Althusser and the Post-Structuralist Debates", *Critical Studies in Mass Communication*, vol. 2, nr 2 (June 1985), 98.
5. Hills, M. *Fan cultures*. Routledge, London & New York, 2002, 29.
6. Johnson, R. "The Story So Far: And Other Transformations?" in Punter D. (ed.) *Introduction to Contemporary Cultural Studies*. Longman, London, 1986, pp. 277-313.
7. Kerr, A. "'Live Life to the Power of PS2' Locating the digital games industry in the new media environment", *Irish Communications Review*, vol. 9 (2003). Available: http://www.icr.dit.ie/volume9/articles/Kerr.pdf
8. Kline, S., Dyer-Witheford, N. & de Peuter, G. *Digital Play: The Interaction of Technology, Culture, and Marketing*. McGill-Queen's University Press, Montreal & Kingston, 2003.
9. Kücklich, J. "Precarious Playbour: Modders and the Digital Games Industry", paper delivered at Creative Gamers Seminar, University of Tampere, Finland, January 11-12, 2005.
10. Mactavish, A. "Game Mod(ifying) Theory: The Cultural Contradictions of Computer Game Modding", paper delivered at Power Up: Computer Games, Ideology, and Play, Bristol, UK, July 14-15, 2003.
11. Meehan, E.R. "Leisure or Labor?: Fan Ethnography and Political Economy" in Hagen, I. & Wasko, J. (eds.) *Consuming Audiences? Production and Reception in Media Research*. Hampton Press, Cresskill, New Jersey, 2000, pp. 71-92.
12. Mosco, V. *The Political Economy of Communication*. Sage Publications, London, Thousand Oaks & New Delhi, 1996, 26.
13. Postigo, H. "From Pong to Planet Quake: Post Industrial Transitions from Leisure to Work", *Information, Communication & Society*, 6:4 (2003), pp. 593-607.
14. Sotamaa, O. "Playing It My Way? Mapping The Agency of Modders", paper delivered at Internet Research 5.0 Conference, University of Sussex, UK, September 19-22, 2004.
15. Sotamaa, O. "Creative User-centred Design Practices: Lessons from Game Cultures" in Haddon L. et al. (eds.) *Innovatory Users and Communication Technologies*. Springer Verlag, London, 2005. (Forthcoming)
16. Terranova, T. "Free Labor: Producing Culture for the Digital Economy", *Social Text* 63, vol. 18, no. 2 (Summer 2000), pp. 33-58.