

Play in the Mobile Internet: Towards Contextual Gaming

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Abstract

As use of Internet from broadband-enabled mobile devices is becoming more common, studying the particular characteristics of mobile usage gains new importance. This paper discusses the role of services like Flickr and Facebook from the perspective of “contextual gaming” – the appropriation of mobile and networked media for playful purposes in a social context. Applying Roger Caillois’ distinction between *paidia* and *ludus*, the paper will introduce both free-form and improvised, as well as more rule-bound and competitive developments into playful, social media. The paper will conclude with both some criticism of the increasingly pervasive and continuous entanglement in socially charged technologies, while also welcoming the empowering and liberating potentials in this process.

Keywords

Internet, games, mobile media, social media, game studies, digital culture.

Introduction

The social and cultural phenomena related to Internet gaming have received their fair share of attention, particularly through numerous studies of massively multiplayer online role-playing games (MMORPGs). Also mobile games have their own research and developer communities, but the research work related to mobile games has so far been dominated by their technical and design challenges and researchers have not been particularly interested in their social aspects – in contrast to the numerous studies that have focused on mobile communication through text messages and other means (the recent *Handbook of Mobile Communication Studies* dedicates one out of its 32 chapters to mobile games and entertainment; see Katz & Acord 2008).

This paper will approach contemporary developments in social and mobile gaming as an Internet phenomena. Looking back, there has been a noticeable difference between Western usage patterns of the Internet, mostly focused on the personal computer, and Japan, where mobile phone is the predominant access point to the Internet services. Recently also Western countries have been introduced with new generations of Internet-capable smartphones (Apple iPhone, Nokia N-series, BlackBerry devices etc.) that reportedly have already been associated with a noticeable upsurge in the mobile Internet usage, and some analysts have claimed that now finally “mobile internet has reached a critical mass”.¹ The relative share of mobile browsers in the Internet usage statistics nevertheless still remains in minority. Why then to focus on

the mobile interfaces into the Internet, and consider them from a social, Internet and game studies perspective?

Currently there are reportedly almost four billion mobile phone users in the world.² Mobile phone is the most widely available network-enabled terminal device, and one that plays a major role especially as developing countries are finding their ways to the Internet. Personal and almost always on hand, a contemporary mobile phone can potentially foster developments of new user cultures, including ones involving casual creation and sharing of contents related to digital photography, Web (which here mostly means the popular culture of the Internet), music and games. I will in this paper focus on an ongoing development that will integrate these contents and practices with the contextual information available, both as the physical use context, and as the context provided by social networks. The studies of play and games will provide a particular perspective that helps to understand the character of this development.

The phrase ‘contextual gaming’ has so far mostly meant experiments in game design that exploit various sensors and other technical sources of data, used for implementing location-aware games, games that rely on gesture or pattern-recognition, or game worlds that in one way or another reflect the real world, like mimicking its weather conditions or daily rhythms (for a summary, see Tester 2006). Far less experimentation has been dedicated to the development of games that rely on social contexts and information derived from social networking tools. Social motivations nevertheless will remain as a major force that influences how many people use or not use the information and communication technologies. Principally, contextual gaming therefore in this paper means playful behaviours that are rooted in, or that emerge from social relations and exchanges of information that are used to maintain and expand such networks of relationships. Contextual gaming gains specific meanings when the location and situation of participants is fluid – as is the case with contemporary online services which can be accessed in multiple ways. I will focus on few examples that illustrate this evolving field in the remainder of this paper.

There are several other, including more technically oriented approaches to ‘context’ in mobile internet studies that I will pass on here, including those that differentiate between environment context, personal context, task context, social context, spatio-temporal context, terminals context, etc. (Guarneri et. al. 2004: 14-15). I consider all these as varieties or aspects of the users’ social context. The main reason for such approach into contextuality is the emphatically social character of cultural signification systems; every significant context, in this perspective, is primarily a socially determined context.³ At the same time, one should remain aware of the ways in which e.g. bodily data, or data derived from physical activities or environments are currently becoming accessible to digital consumer devices. Much of the interesting potential for gaming and other uses of information and communication technologies at the moment are rooted in this increasingly tighter intertwining of the physical and digital realities in the social sphere of significance.

Playful Online Photo Sharing

I will next move on to introduce some examples that relate to the emerging field of contextual gaming in different ways. The examples have been selected on the basis of

popularity and accessibility – no particular claims for artistic, technical or other cultural significance are made.

My first example is Flickr,⁴ an online service that is used to share and comment on digital photos. The mobile applications of Flickr are rapidly expanding, which is mainly due to the increasing ubiquity of digital cameras and wired broadband connections or wireless hotspots that allow near-instantaneous uploading of photos as they are taken. Applications tapping into the potentials of camera phones continue to accelerate and develop the practices of online photo sharing into new forms. Also, new camera models have started to appear that have the Wi-Fi connection built into the camera, and there is already a product available that includes the wireless connectivity integrated into a memory card.⁵

Despite currently being owned by Yahoo!, Flickr was originally developed by a game design company, Ludicorp, and the service still retains many features that relate back to its gaming roots. Some of them are merely technical – e.g. the Flickr's *.gme file extension that relates back to Ludicorp's original *The Game Neverending* project. Some are more subtle and based on certain design choices built into the service. According to the designers, *The Game Neverending* was intended to be a massively multiplayer web-based online game, where players would have been able to share in-game objects with others by dragging them into instant messenger (IM) windows. Flickr evolved from realisation that playful interaction around images could in itself be rewarding enough to become the basis for a successful online service.⁶

It is possible to differentiate the playful characteristics of Flickr further by employing concepts introduced by Roger Caillois (1958/2001). Caillois defined a continuum which takes place between two opposite modes of playing, the spontaneous *paidia* and rules-bound *ludus* (ibid. x, 27, 31). Gonzalo Frasca (2003, 229-230) has further articulated this difference by underlining how *ludus* is based on rules that define a winner or a loser, whereas *paidia* is engagement playful or game-like behaviour without such emphasis on competitive conflict.

As a social media service that is primarily aimed at sharing and discussing digital photos online, Flickr is obviously most strongly oriented towards *paidia* style of playful spontaneity. Simultaneously, it also carries within it features that make it open for *ludus* style of competitive play. To give some examples, there are currently (in August 2008) more than seven thousand Flickr “groups” (discussion areas, alongside a “group pool” of photos shared by this group of Flickr members) that mention ‘game’ in its title or description text. (More than eight thousand groups mention ‘play’.) Typically these are areas for having fun while playing around with photos, following some simple rules set up by the group’s founder or group’s administrators. The basic rule might for example be to post only photos with vibrant colours (as in the “Catchy Colors” group), and provide encouraging feedback by commenting photos that have succeeded well in fulfilling this goal. Within the group, new rules might then be improvised; e.g. a discussion thread may be started to play a simple tag, or “catch me if you can” style game that are popular in Flickr. In this manner of playful photo sharing, the idea is to match the previous photo through some feature such as shape or colour of one’s own photo, and then pass the challenge on to others.

In a digital environment, the quality of attention can also quickly become reinterpreted as a quantitative measurement – the number of comments users get to a photo remain as one of the main indicators of success in a social service such as Flickr. The service of Flickr have taken this one step further by introducing feature they call “interestingness”. This (apparently patent-pending) algorithm is based on “the quantity of user-entered metadata concerning the media object, the number of users who have assigned metadata to the media object, access patterns related to the media object, and/or a lapse of time related to the media object”.⁷ As the number of photos in Flickr exceeded two billion in 2007,⁸ interestingness plays major part in the process of filtering out “the best photos” and featuring 500 of the top rated ones daily in the public “Explore” pages. The inquisitive users have done their best to track down which are the exact variables that Flickr uses to calculate the interestingness of photos, concluding that at least the following factors matter: 1) views of the photo, 2) number of comments on the photo, 3) tags applied to the photo, 4) Flickr discussion groups where the photo appears, 5) number of favourites (Flickr bookmarks) of the photo, and 6) how above behaviours measure in terms of time. Also, it is suspected that certain active users will have much more emphasis put on their comments and favourites than others when interestingness is being calculated. Flickr users are also familiar with certain individuals who try to “game the system” e.g. by posting their photos into large numbers of (possibly unrelated) groups. The Flickr developers have responded by tweaking the algorithm to devalue such photos automatically.⁹

It could be argued that “gaming the system” is a natural response to a social environment that encourages playful behaviours and then introduces a quantitative measurement system in middle of them. The absolute metrics derived from how users’ photos measure up in the interestingness scale can be used to distinguish “winners” from “losers” within the Flickr “gaming community”, and thus the quantitative measurement effectively invites more *ludus* style of competitive interaction within the context of playful photo sharing. There appears to be multiple ways – even conflicting ones – to play or game in Flickr, and heated discussions on the uses and abuses of the system continue in the discussion forums. The information researchers who have started to pay notice to the workings of Flickr have pointed out that the real significance of having a photo appear among the automatically top-ranked Explore photos is smaller than users themselves typically think. The images actually get most of their attention through the direct contacts among Flickr users – through the practices of “social browsing” (Lerman & Jones 2006). This does not stop the competitively minded Flickr users from trying to tweak their odds in attempts to get their photos into the Explore category.

A number of dedicated gaming applications have also been developed that make use of the Flickr API (Application Programming Interface). Typically these are browser-based small games that rely on a combination of Flickr photos with some classic game format, and none of these game designs have been so far as popular as social play within the Flickr service itself. Some examples include the following:



Figure 1: Flickr *Sudoku* with tag word ‘hamster’.

– *Flickr Sudoku*.¹⁰ This is a version of Sudoku that replaces numbers with images tagged with certain words from Flickr (see Figure 1, above). The aim is to fill the grid with system-generated images so that each column, row, and smaller three-by-three grid contains all nine different images. There are differently designed puzzles to choose from, and the player can herself type in keywords that are used to generate the token images from Flickr. Thus, Flickr is mostly used to provide visual flourish to the familiar game mechanics. No multiplayer mechanisms or other social gameplay are apparent in the implementation, but the photos themselves and their surprising combinations may provide a source of humour among the Flickr users.

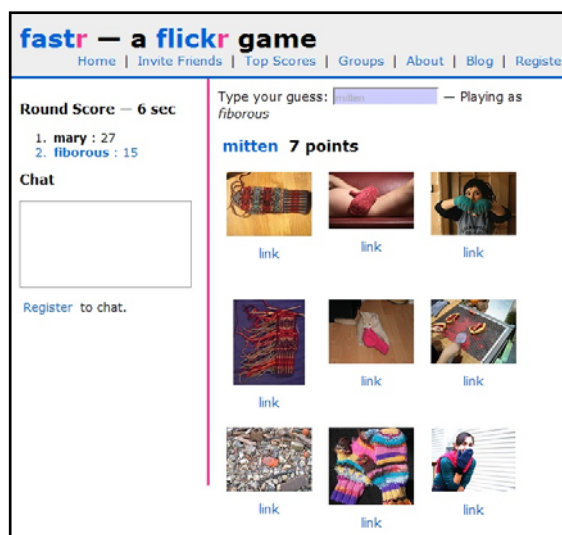


Figure 2: the *Fastr* game, with two players.

– *Fastr*.¹¹ This is a guessing game which displays ten images, one by one, and the player needs to type in suggestions of what might be the tag that all these pictures share (see Figure 2, above). A correct guess appears as a blue word and score is given, based on how fast the player was in guessing right. The full version of the game is multiplayer and allows chat exchanges among players. Relying on social interaction

as well as on playful use of social metadata, this type of game has become relatively popular in the Web (see e.g. *ESP Game*¹² and *Guess-the-Google*¹³).

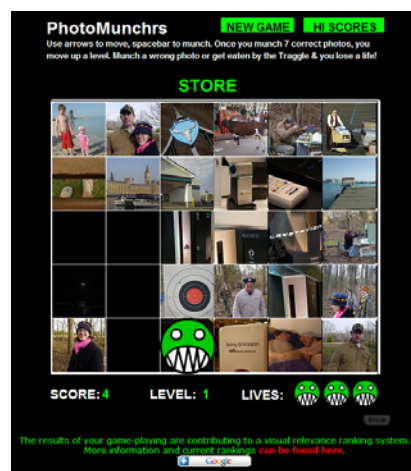


Figure 3: the *PhotoMunchrs* game.

– *PhotoMunchrs*.¹⁴ One use for games and the Flickr API has been application of them into information research and studies of search technology. *PhotoMunchrs* is a puzzle game that relies on *Pac-Man* style of navigation through a picture grid, guiding the player character into eating images based on the right tag words, while avoiding meeting the enemy (a red “Traggle” character) or eating “wrong photos” (see Figure 3, above). Munching seven correct photos moves the player up one level. The game has been designed as an experiment in gathering visual relevance data. There is a hi-score list, but no actual multiplayer features.

It should be noted that the dedicated gaming applications are in clear minority within the broader field of playful Flickr applications. There are literally hundreds of different Flickr uploading tools, desktop applications, mobile phone applications, browser extensions and plug-ins for blogging software that are often categorized as “fun and games”, rather than as utility software. The discourse of dedication and passion for extended Flickr use also regularly shares the rhetorics of addiction with that often associated with games and gamers.¹⁵

As a showcase of contextual gaming, Flickr is able to provide mixed and diverse lessons. Individual Flickr photostreams trace the life and travels of active users in a manner that provides an intimate and detailed view into their daily lives. Simultaneously, the service automatically highlights the most recent photos from users’ Flickr contacts when one logs in to the service account. Yet, the mobile, contextual use of Flickr images appears limited, in part due to the laborious process of providing photos with geo-data (something about to change as GPS becomes more integrated in mobile photo devices). The *paidia* dimension of Flickr appears thus primarily contextualised through connections that form the social context to the practices of playful browsing (as analysed by Lerman & Jones 2006). Contextual and spatial information is currently provided for playful uses to a certain degree through Flickr Places and Flickr World Map, which allow multiple ways of navigating, commenting and other forms of participation in geographically filtered photostreams. The ensuing rich environment of users, social networks, photos and their dynamic

interconnections then provides material for that apparent minority whom are interested in engaging in more *ludus* style of goal-oriented or competitive gaming in Flickr. The social mini-games, such as *Fastr*, have their potential, but are still rather limited experiments.

Play in Networks

My second example will focus on the contextual access and play in Facebook,¹⁶ a popular social networking service, and certain related “social utilities”. The situation is slightly comparable to that of Flickr, even if the services in themselves have been designed with clearly different goals in mind. Facebook has its origins as a social networking service for university students – the founders originally designed the service while being students in Harvard.¹⁷ In 2008 Facebook claims to be “the most-trafficked social media site in the world” and one of the most popular websites in general, with its over 90 million active users.¹⁸ Even if online sharing of photos is also in Facebook one of the most popular activities with 60 million photos uploaded each week,¹⁹ Facebook is much more diverse service, with several distinctly different classes of “apps” (applications utilizing the Facebook API) available.

The spatially contextualised origin of Facebook is still visible in the way its users are organised into “networks” that relate to their school, workplace or living area. Some analysts of Facebook user data have suggested that allowing users to search each other’s profiles for shared city, institution or job type may be an important way to create the “sense of connection” that, in its turn, facilitates interaction (Lampe, Ellison & Steinfield 2007). Similarly, Facebook has been connected with strengthening social capital e.g. by linking students to old school friends, and through this process contributing to their well-being (Ellison, Steinfield & Lampe 2007). Since 2007, Facebook has also been made available in various ways as a mobile service.²⁰ A recent addition has introduced a dedicated iPhone interface into Facebook for the Apple smartphone users.²¹ All these different ways of access are designed to facilitate making of quick “status updates” in contexts that are realised away from the office desk, and the desktop PC.

Games applications are a visible part of the Facebook “ecosystem”. When approached as a playful or gaming environment, the Facebook experience is initially focused on acquiring “friends” to one’s contact list. The service has made this easy, by tracking existing social networks and suggesting new contacts. Yet, other social networking services display the number of one’s contacts more prominently than Facebook (see e.g. LinkedIn.²²) Facebook is more focused on various ways of acting and sharing in the social environment that the service features and add-on applications allow for interacting with one’s online contacts. Particularly since Facebook opened their “Facebook Platform” (a set of application programming interfaces, APIs) in January 2007, the field has expanded and thousands of different Facebook applications have been created and made available through the service.²³ In distributing them, Facebook has relied on viral model where each user is encouraged to send an install invitation to their own contacts. This mechanism, while related to the exponential popularity growth of the top applications, has also led to phenomenon called “application spam” – of application invitations and notifications rising to such numbers that they have even been blamed for Facebook user numbers starting to drop in early 2008, for the first time since the service opened.²⁴

Facebook usage appears closely integrated with the daily media practices of its users; Ellison et al. (2007: 1144, 1153) refer to studies according to which the “typical user spends about 20 minutes a day on the site, and two-thirds of users log in at least once a day”, and their own findings among undergraduate students confirms this, adding that their informants reported having between 150 and 200 friends listed on their profile. The significance of social context and the intense socially interactive character of Facebook is further underlined by data published by O’Reilly, according to which the three most popular uses for Facebook applications are enhanced communication, social comparison, and playing a social game.²⁵ When approached from a game studies perspective, even the communication and comparison applications in Facebook appear distinctively game-like or playful. I will illustrate this by briefly highlighting a couple of typical Facebook applications.

At the time of writing this, the most popular application in the Facebook application directory was titled “Slide FunSpace (formerly FunWall)”.²⁶ Among its over 21 million monthly active users, Slide FunSpace advertises having shared over six billion videos and other links. In blogosphere, FunSpace and its main competitor, SuperWall are among the most widely criticized applications, sometimes on the basis of its content, sometimes on grounds of being source of much “application spam”. Much of the top shared content in FunSpace is either sexually oriented (see Figure 4 below), humorous, or both. Also the sharing of music videos and other media that is popular among young people are at the top of the lists of FunSpace. I would argue that the principal function for “enhanced communication” application like FunSpace is similar to that of phatic communication – communication that is practiced for maintaining social relations, rather than for its information value. Phatic communication is sometimes considered as a practical synonym for social presence (Rourke, Garrison & Archer 1999). FunSpace is thus used to construct a shared, pleasantly sociable space among its users – as its name already suggests.

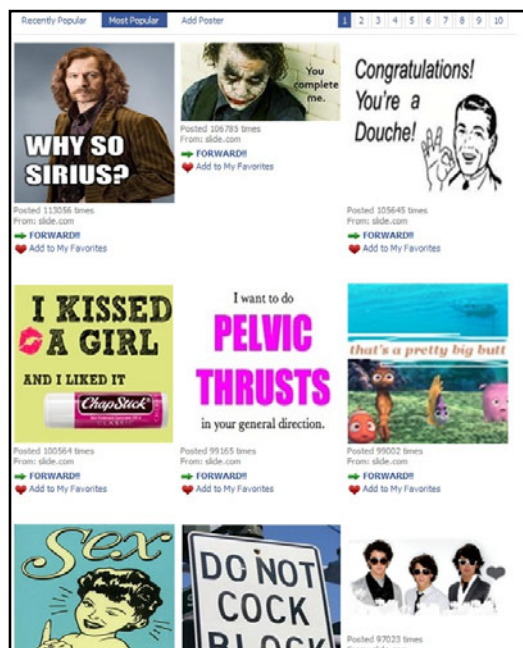


Figure 4: The most popular posters in FunSpace (Facebook.com, August 26, 2008.)

Games applications have got their fair share of visibility in Facebook. However, in the Facebook application directory majority of applications with most active users appear at the time of this writing to be something else rather than explicit game applications.²⁷ Among the top 35 applications, five clearly present themselves as games: *Word Challenge* (#7), *Quizzes* (#15), *Tower Bloxx* (#16), *Crazy Taxi* (#27), and *Zombies* (#35). Number of other applications are included into the Games application directory, including *Pokey!* (“Adopt an adorable, interactive 3D puppy who lives on your profile, plays with you, carries bones to your friends, and gives you tons of love!”²⁸), and *YoVille* (“YoVille is a world where you can buy new clothes for your player, purchase items for your apartment, go to work, and meet new friends”²⁹). Rather than ‘games’ in the classic sense, these applications could be described as “software toys”, which is the concept game designer Will Wright and his company has decided to use about such popular creations of theirs as *SimCity* (Maxis, 1989) and *The Sims* (Maxis, 2000).³⁰

It should be noted that at least one very popular game application, *Scrabulous*,³¹ has already been deleted from Facebook due to copyright issues. *Scrabble*-based word games nevertheless have kept their popularity, as the success of *Word Challenge* (developed by Playfish) points out. Being games literate in *Scrabble* is facilitated by the success of the original board game – it is been claimed that it has been published in 121 countries around the world and with its over 100 million sold sets is the world’s best selling word game.³²

What Facebook game applications contribute to the design space of classic board games or video games is their close integration within the shared social context of online service. *Word Challenge* allows easily inviting or challenging other users that are automatically drawn from the users’ Facebook friends lists. Another game, *Zombies* is a good example of a simple, “first generation” Facebook game application that does not provide much in terms of actual gameplay, but makes rewards into the ranking of users who actively distribute invitations to the game through “biting their friends”.³³ Active recruiters will soon have impressive titles in their profile page, plus their own “army”. The improved power points can then be used in challenging other players to fights, which are automatically sorted out by the game system. This effective distribution mechanism has been one of the major sources of “application spam”, resulting to Facebook administration stepping in, and forbidding applications like *Zombies* (or its multiple alternative versions, *Vampires*, *Werewolves*, or *Slayers*) from granting points from invites any more.³⁴

Tower Bloxx (developed by Digital Chocolate) is an example of a mobile game that has been converted into a Facebook application. Originally a single player game, in *Tower Bloxx* the player’s aim is to build as high and as stable building as possible by dropping building block on top of each other. In Facebook version the basic gameplay remains the same, but the game scores gained by one’s friends are integrated in the screen (see below, Figure 5). The dashed bars are a visible incentive to compete against the best scores gained by those in one’s social network.



Figure 5: *Tower Bloxx* screenshot from Facebook.com.

Designed and programmed mostly on Flash, these applications run poorly or not at all within the browsers of contemporary mobile phones. The mobile use is however not restricted to handsets – the laptop computers have gained in popularity, and some analysts have already claimed that laptop sales have started to eclipse those of desktop computers.³⁵ Thus the “mobile Internet user” is increasingly typically one that is using Wi-Fi, 3G or some other wireless network to get online from one’s laptop. One factor driving this is the ongoing societal and global development where work is becoming increasingly mobile and information based; e.g. already in year 2002, 45 % of Finnish workforce could be categorised as “mobile workers” (Gareis, Lisischkis & Mentrup 2002, 54). This will create new kind of challenges for staying in touch with one’s colleagues, as well as with family and friends. Even while working, one might not be in the office. And playing a session of *Tower Bloxx* while waiting for transfer on an airport might be yet another way of keeping oneself visible in the social map.

Two applications or functionalities which Facebook support for mobile phone use are status updates and photo uploads. Both of these serve communicative purposes that are important for travelling users: the regular status updates and a stream of camera-phone photos helps in keeping in touch with the people in one’s social network. For example, looking at the status update stream from my own friends for today, I can see a mixed collection of their messages, some related to their ongoing work, some to personal matters or feelings, some joking or surreal in style. Among 29 comments there are three with little mobile phone icons next to them, marking them as having been posted from the mobile interface. One person appears to be away from the office on a work matter, another one has posted his status updates from a hospital bed. This kind of anecdotal evidence clearly just points towards the need for more substantial studies into mobile social media use and user cultures, but it is already clear that the borderline between communicational practices in the PC-centric Internet and in the mobile phone cultures is becoming thinner. Still in 2003, when Eija-Liisa Kasesniemi studied the second generation GSM phone cultures in Finland, her informants could make a clear distinction between what kind of communicational affordances are related to personal computers in contrast to mobile phones:

Researcher: If you had to give up either SMS or email, which one would you drop?
Kati [a 14-year-old informant]: Probably email since the computer is so, I mean you can't carry it with you and things like that. [...]
Researcher: Is IRC more fun than sending SMS?
Kati: Mm, there's the thing that you can only do it in one place, sitting in front of your monitor. You can send SMS pretty much anywhere.
 (Kasesniemi 2003: 23.)

Today, in 2008, this kind of distinctions appear still mostly valid; nevertheless, as mobile broadband connections facilitate the use of instant messenger applications in phones as well as in laptop computers, the role of “use context” does not remain the same any more. The mobile users of services like Facebook or Flickr are already blurring this division line. Also so-called micro-blogging services have been created, most popular of them Twitter.³⁶ Jaiku³⁷ is example of another micro-blogging service that relies on integration to mobile phones, facilitating quick status updates while away from the office. What remains important, however, in all of these is the social context: after logging into the service, the same network of contacts and friends is available, irrespective of the device or technology used for getting online and into the communicational space.

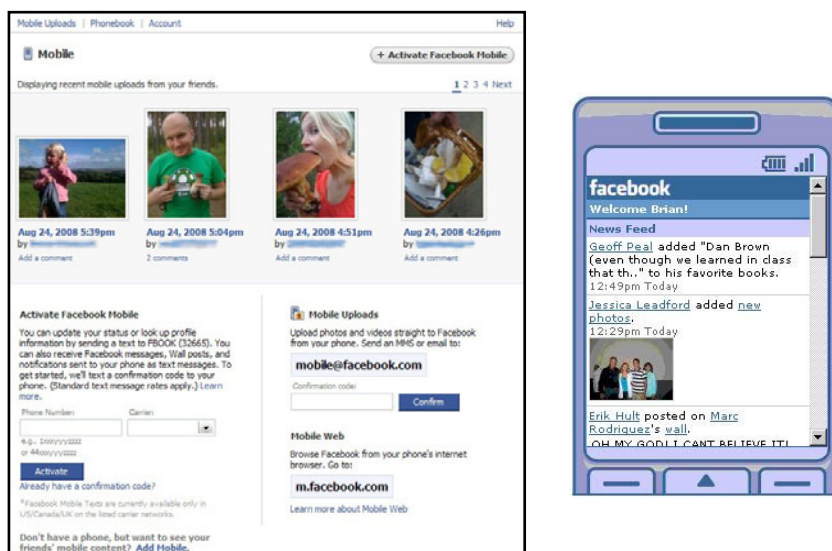


Figure 6: Mobile services of Facebook.

Adam N. Joinson (2008) has studied Facebook users' key motivations for accessing the service, and “keeping in touch” was mentioned as the most important one; the other key motivations were also people-oriented – desire to go “virtual people-watching” (social surveillance), re-acquire lost contacts, and generally just need to communicate. The mobile access into Facebook is one particular way the contact with one's social network can be extended and maintained. The stream of photos and status updates from mobile users forms one thread in the mediated acts that together contribute to one's social presence (see above, Figure 6). Again, we can find multiple ways in how ‘play’ and ‘games’ figure in these hybrid, cross-platform exchanges. One of the key elements in most dictionary definitions of ‘play’ is the free and pleasurable character of playful activities. In a recent article, Anne McClard and Ken Anderson (2008) have paid attention to the dynamic and social character of identity construction

that takes place in Facebook: rather than focusing on setting up one's "profile" as a static page, as in some other services, the application-based nature of Facebook allows a representation of identity that is fluid. "One's 'image' is created by what one does, who one does it with and how it is done; it is constantly in flux", they write. "On Facebook life is a game", they claim, and continue:

Although participants can open chat windows or belong to special interest groups of a more serious nature, the daily drivers of Facebook exchanges are games and quizzes. As technology mediates more and more of our social exchanges, the forms of our interaction change. Gaming – light, breezy and fun interactions with friends near and far – keeps ties alive without being burdensome. (Ibid.: 12.)

As I have argued elsewhere (Stenros, Montola & Mäyrä 2007), there is visible trend of increasing *ludus* in contemporary society – meaning here both the increasingly visible playful attitude and adoption of game-like practices e.g. in media, notably in phenomena like the reality television and game shows that are dominating today's broadcast media. Yet, it might be exaggerated to claim that life is nothing but game for users of Facebook, but it certainly is valid to say more generally that the *paidia* style of playful, social interaction is dominating much of what is going on in this service. It even might be that *ludus* impulse of (competitive, rule-bound) gameplay goes against the impulse to participate in the more freeform, playful exchanges taking place through status updates, photo comments, and the various "poking", "hugging", "kissing" or "gift giving" activities that are plentifully displayed in Facebook user's profiles and application "walls". In his abovementioned analysis of Facebook users, Adam N. Joinson (2008) notes: "Interestingly, an increased score on the content gratification scale was negatively related to the number of 'friends' reported to be linked to one's profile." Thus, the interest in dedicated gaming applications does not appear necessarily to go together with the social interests in Facebook. Here we appear to have a case where emphatically social *paidia* is differentiated from *ludus* that is not focused on social networks to a similar degree. However, more research would be required before drawing any more far-reaching conclusions on this.

Towards Conclusions

In this paper I have made a quick look at the rapidly changing landscape of mobile Internet usage and playful behaviours in online social networking services. As "mobile Internet" is no longer synonymous with dedicated mobile phone services, the character of 'mobility' is undergoing transformations. The combination of social networking with playful, or game-like uses and behaviours emerges as an important contemporary form of online communication. While still few years back it was typical to focus on various operator-provided utility services like online banking or news services while discussing the mobile Internet, today's landscape appears much more centred on users themselves – perhaps the much searched-after "killer app" is finally other people.

Mobile Internet also increasingly appears to be a hybrid one. This is hybridity in terms of technologies, as laptop computers, handheld PC devices and smartphones are utilised in ad hoc manner, making use of whatever network and interface is available. Hybridity is also social, as the users are enrolling to various online services and locate different subsets of contacts in each of them. In the ensuing melange of contacts and communication, the social spheres of colleagues, personal friends and family are

starting to intertwine in an increasingly complex manner. Finally this hybridity is also existential, as the physical presence (or absence) is augmented by various “photo streams”, “status updates” and other online acts and representations that together constitute the contemporary presence of an individual in a social context.

It is also easy to criticize the ongoing development. As there is soon a network-enabled device in the most pockets as well as in schoolbags or briefcases, the possibility of “logging in” might soon be a social obligation to do so. For some active Internet user demographics the situation might already be such. The privacy concerns aside, the constant compulsion to “update oneself” in the online social sphere might also be a symptom of some underlying frailty in the contemporary society. The extended social networks are also busily producing a never-ending stream of contextual information that is in danger of becoming yet another form of “infoglut”. That our lexicon now includes concepts like “invite spam” or “application overload” tells that it already might have become one.

Drawing upon Michel Foucault, Gilles Deleuze (1998) has written about the “society of control”, where the confinement of space and time, which was typical to the disciplinary societies in the eighteenth and nineteenth centuries, has been replaced by new forms of internalised, economical, and ultra-rapid forms of “free-floating control”. It is not clear at this point yet what the exact role of mobile and social, contextually enabled applications and services will be when approached from this perspective. The connections these systems allow are always dual: they liberate to explore and express, and are therefore potentially empowering. On the other hand, the constant contact to social network services is also enabling new, unceasing techniques of control. My overall conclusions at this point are, nevertheless, predominantly positive. It is inspiring to see the ways in which various “communication tools” or “social utilities” are being repurposed by their users to become playing fields. There is certain Dadaist or anarchist (or perhaps just infantile?) pleasure involved in following how one’s colleagues throw sheep at each other, or buy and sell each other as pets. The participation in freely flowing energies of play can, nevertheless, also easily turn into compulsions of connection. In this view, contextual gaming is currently a loaded field, strained between multiple possible directions of future evolution.

Notes

¹ See: “Mobile internet penetration hits 12.9 percent in the UK”, IAB UK, July 11, 2008. Online: <http://www.iabuk.net/en/1/newmobileinternetresearch110808.mxs>. Also: “Google; AT&T shocked by iPhone usage”, *ZDNet*, online: <http://blogs.zdnet.com/Apple/?p=1316>. Accessed: August 27, 2008.

² “Worldwide Mobile Subscriptions to Reach 5.6 Billion by 2013”, *Cellular-News*, online: <http://www.cellular-news.com/story/32073.php?source=newsletter>. Accessed: August 15, 2008.

³ Anthony Giddens has summarised work of psychologists such as Erik Eriksson and D. W. Winnicott on the evolution of “basic trust” and points out how, from a sociological and philosophical perspective, these links to other people are “connected in an essential way to the interpersonal organisation of time and space” (Giddens 1991, 38). My approach is based on earlier published work (e.g. Ermi & Mäyrä 2005 and Mäyrä 2007; 2008).

⁴ See: <http://www.flickr.com/>. Accessed: August 22, 2008.

⁵ See: <http://www.eye.fi/>. Accessed: August 22, 2008.

⁶ See Jesse James Garrett (2005) “An Interview with Flickr’s Eric Costello”. *Adaptive Path*, August 4, 2005. Online: <http://www.adaptivepath.com/ideas/essays/archives/000519.php>. Accessed: August 15, 2008.

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- ⁷ Butterfield; Daniel S. et al. (2006) "US Patent Application 20060242139: Interestingness ranking of media objects". Online: <http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=/netahtml/PTO/srchnum.html&r=1&f=G&l=50&s1=%2220060242139%22.PG.NR.&OS=DN/20060242139&RS=DN/20060242139>. Accessed: August 18, 2008.
- ⁸ Arrington, Michael (2007) "2 Billion Photos On Flickr", *TechCrunch*, 13 November, 2007. Online: <http://www.techcrunch.com/2007/11/13/2-billion-photos-on-flickr/>. Accessed: August 18, 2008.
- ⁹ Wesley Hein, blog note "Deconstructing Flickr's 'Interestingness!'" Online: <http://wes2.wordpress.com/2006/05/12/deconstructing-flickr-interestingness/>. Accessed: August 18, 2008.
- ¹⁰ "Flickr Sudoku", *Becky's Web*. Online: <http://www.beckysweb.co.uk/sudoku/flickr sudoku.asp>. Accessed: August 18, 2008.
- ¹¹ "Fastr – A Flickr Game", *RandomChaos.com*. Online: <http://randomchaos.com/games/fastr/>. Accessed: August 18, 2008.
- ¹² Grant Robinson, "Guess the Google". Online: <http://grant.robinson.name/projects/guess-the-google/>. Accessed: August 18, 2008.
- ¹³ "ESP Game", *Gwap.com*. School of Computer Science, Carnegie Mellon University. Online: <http://www.gwap.com/gwap/gamesPreview/espgame/>. Accessed: August 18, 2008.
- ¹⁴ Pamela Fox, "PhotoMunchrs". Online: <http://i imagine-it.org/flickr/PhotoMunchrs.html>. Accessed: August 18, 2008.
- ¹⁵ See e.g. Sean P. Aune, "Flickr Toolbox – 100+ Tools for Flickr Addicts", *Mashable.com*, August 4, 2007. Online: <http://mashable.com/2007/08/04/flickr-toolbox/>. Accessed: August 18, 2008.
- ¹⁶ See: <http://www.facebook.com/>. Accessed: August 22, 2008.
- ¹⁷ See: <http://www.new.facebook.com/press/info.php?execbios=#/press/info.php?timeline>. Accessed: August 22, 2008.
- ¹⁸ See: <http://www.new.facebook.com/press/info.php?execbios=#/press/info.php?statistics>. Statistics based on data provided by comScore, Inc. Accessed: August 22, 2008.
- ¹⁹ See: <http://blog.facebook.com/blog.php?post=2406207130>. Accessed: August 22, 2008.
- ²⁰ See: <http://www.facebook.com/apps/application.php?id=2915120374&b> and <http://blog.facebook.com/blog.php?post=2228532130>. Accessed: August 25, 2008. Rather than a single application, "Facebook mobile" comprises of ability to upload photos and notes directly from one's mobile phone to the service, and the of the <http://m.facebook.com/> interface that is customised for small-screen browser use.
- ²¹ See: <http://iphone.facebook.com/>. Accessed: August 26, 2008.
- ²² See: <http://www.linkedin.com/>. Accessed: August 25, 2008.
- ²³ Anastasia Ustinova, "Developers compete at Facebook conference", *San Francisco Chronicle*, June 23, 2007. Online: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/07/23/BU7C11TAES.DTL>. Accessed: August 26, 2008.
- ²⁴ See Dave Parrack, "Facebook use drops - Could application spam be the cause?", *Blorge*, February 21, 2008. Online: <http://tech.blorge.com/Structure:%20/2008/02/21/facebook-use-drops-could-application-spam-be-the-cause/>. Accessed: August 26, 2008. *Time* has also discussed the phenomenon, under the heading of "application overload"; see: Anita Hamilton, "Suffering From Facebook Fatigue?" *Time*, April 16, 2008. Online: <http://www.time.com/time/business/article/0,8599,1731516,00.html>. Accessed: August 27, 2008.
- ²⁵ Shelly D. Farnham, "The Facebook Application Ecosystem: Why Some Thrive, and Most Don't", O'Reilly Media webcast, May 13, 2008. Online: <http://www.oreillynet.com/pub/e/968>. Accessed: August 26, 2008.
- ²⁶ See: <http://www.new.facebook.com/apps/> and <http://www.facebook.com/apps/application.php?id=2378983609>. Accessed: August 26, 2008.
- ²⁷ See: <http://www.new.facebook.com/apps/> > Most Active Users. Accessed: August 27, 2008.
- ²⁸ See: <http://www.facebook.com/apps/application.php?id=10062052582>. Accessed: August 27, 2008.
- ²⁹ See: <http://www.facebook.com/apps/application.php?id=21526880407>. Accessed: August 27, 2008.
- ³⁰ The 'software toy' concept was publicised by Maxis *Software Toys Catalog* (quoted in Ted Friedman, "Making Sense of Software: Computer Games and Interactive Textuality", updated version, online: <http://www.duke.edu/~tlove/simcity.htm>. Accessed: August 27, 2008.
- ³¹ See: <http://www.scrabulous.com/> and <http://apps.new.facebook.com/scrabulous/>. Accessed: August 27, 2008.

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- ³² See: “The History of Scrabble”, Mind Sports Organisation Worldwide. Online: <http://www.msoworld.com/mindzine/news/proprietary/scrabble/features/history.html>. Accessed: August 27, 2008.
- ³³ See: <http://www.facebook.com/apps/application.php?id=2341504841>. Accessed: August 27, 2008.
- ³⁴ See: <http://developers.new.facebook.com/news.php?blog=1&story=137>. Accessed: August 27, 2008.
- ³⁵ See: Joel Hruska, “2008 could be the year laptop sales eclipse desktops in US”, *Ars Technica*, January 3, 2008. Online: <http://arstechnica.com/news.ars/post/20080103-2008-could-be-the-year-laptop-sales-eclipse-desktops-in-us.html>. Accessed: August 27, 2008.
- ³⁶ See: <http://twitter.com/>. Accessed: August 29, 2008.
- ³⁷ See: <http://www.jaiku.com/>. Accessed: August 29, 2008.

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