The social aspect of computer games: an activity theoretical model

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There is an emergence of various types of social play around computer games either through community building "outside" the game or "inside" the game. Apparently, computer games have evolved from an application designed for solitary play to a complex social structure with thousands of players interacting with each other simultaneously for example Massively Multiplayer Online Role Playing Games (MMORPGs) and Second Life (SL). Yet there is no theoretical model that can help analyse such social play activities.

Along the same lines with other computer game scholars (Ducheneaut, Yee, Nickell, & Moore, 2006; Yee, 2005), we have argued (Ang, Zaphiris, & Wilson, 2005) that sociability constitutes a significant part of game play. Often, social interaction is embedded either explicitly or implicitly into what appears to be the individual play of a single-player game. Game play is not merely limited to what is happening within the game software artefact itself, but also comprises the game culture that arises around it.

We suggest that computer game studies could incorporate a wider spectrum of play which includes not only social play activities on-screen but also activities that extend beyond the screen. We believe that understanding such play is beneficial for game design, development and ultimately scholarly game studies. This type of research is starting to emerge, but is often destitute of empirical rigour and lacking in theoretical frameworks at the methodological level (Mäyrä, 2006). The oft-mentioned theories of game studies – ludology (Frasca, 1999) and narratology (Murray, 1997) – fall short of insights into a social cultural perspective of computer games as their emphasis is solely on the game artefact rather than the game play activity.

This has motivated us to propose using activity theory (AT) (Engeström, 2001) as a theoretical framework to model game play which comprises three aspects: artefact, activity and participatory culture. We have conducted three empirical studies in order to develop a model that allows us to analyse the social aspects of computer gaming from this perspective.

The aim of our first study was to investigate whether AT is appropriate for game studies by identifying its strengths and weaknesses. We analysed a Wiki-supported game community with AT by focusing on two perspectives: individual and collective actions, as well as individual and collective tools. Experiences and challenges from the analysis were reported to demonstrate how AT is helpful in analysing such activities. We expanded the triangle activity system proposed by (Engeström, 2001) by incorporating the hierarchy of activity proposed by (Leont'ev, 1978) (figure 1).

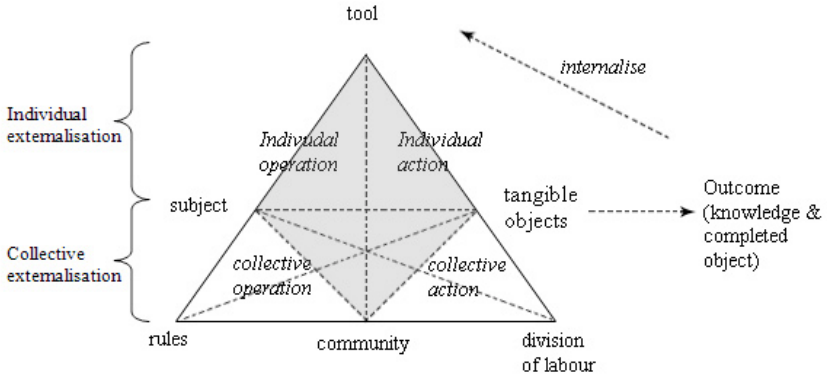

Figure 1. The triangle activity system diagram

We also found out that AT is appropriate for game studies for the following reasons:

- Games are artefacts and activities: Games can be studied as artefacts/tools (e.g. conventional game studies such as ludology and narratology), or as activities (e.g. play activities oriented towards an objective).

- Individual focus: Many computer games are intended for individual play. Therefore, theoretical approaches that focus solely on social aspects may not be appropriate.

- Collective focus: Instead of approaching game play merely as an individual activity, we also consider the social activities each individual is engaged in. In AT, although the perspective of the individual is at the centre of everything, it focuses on the process of an individual situated in a social context.

- AT provides a clear visualization of the concepts: AT has named its theoretical constructs well. Naming is very useful both for communicative as well as descriptive reasons. Being able to manipulate data along with the names in AT provides an additional advantage.

- AT has a clear focus on process and dynamics: Dealing with process is built into the structure of how AT is presented. Activity systems keep process in the

forefront of the analysis, highlighting the concepts of contradiction and development thus enabling us to examine the dynamics of play activities.

Building on the results from the first study, the second study focused on individual and collective game playing activity. Twenty four participants were observed playing two games – one single player and one multiplayer game. During each game playing session the screen was captured on video and a think-aloud was recorded. After the playing session, an interview was carried out with the participant to clarify issues observed during the game session. We modelled the game playing activities as observed in the study, placing particular emphasis on social play and how this affects individual game playing and vice versa.

The third study used the third generation of AT (Engeström, 2001) to analyse games through various levels of play activity and artefact. We examined a broader aspect of games by analysing out-of-game play on the online virtual setting. Based on the third generation of activity theory which claims that an activity system does not exist in vacuum but is interacting with other activity systems, we articulated a theoretical model for analysing computer games which encapsulates the play activity that arises around the game. Particular emphasis was placed on the relationship between in and out-of-game play.

Our studies show that understanding social interaction of computer games involve the analysis of three types of play, namely intrinsic play, reflective play and creative play. Intrinsic play is the play activity that takes place within the pre-designed ludological and narratological structure of the game. This mainly refers to the activity directed towards the game goal. Reflective play occurs when players step out of the pre-defined game structure and reflect on their intrinsic play activity. Creative play refers to the play activity which transgresses the game boundary and transfer intrinsic play in an unexpected way.

These three types of the play occur at both individual and collective level. For example, our observation reveals an interesting collective dimension in which players are not only interacting with each other at intrinsic play, but also"co-reflecting" their play activities by externalising their actions through the construction of external artefacts such as Wiki-based game strategy guide books, game play videos, etc.. Similarly, creative play also arises in which new artefacts are constructed; emerging rules and division of labours are negotiated and agreed.

One of the most prominent examples in social play around a single player game is The Sims (Electronic Art, 2000) (figure 2). The Sims is a simulation of humans and their relationships in an American suburban area. Players are in charge of their simulated people known as Sims and trying to satisfy their needs. There is no winning condition of this game; players can totally mess up their Sims' life and see how they react. This game is often viewed as an authoring tool where players can play out their own stories. The Sims has placed a lot of focus on creative play and the production of fan materials. In order to support such play, particularly at a collective level, design issues for both the game itself and community building mechanism should be

addressed. Therefore, we need a framework to analyse the play activity and a practical guidelines for designing such an activity.

Figure 2. The Sims

Through these studies, we have found that activity theory can be applied in a non-labour context such as computer games and, in particular, it can be usefully applied to studying the social aspect of game playing. In future, we are planning to carry out a study on a MMORPG to further validate the model and to demonstrate the practicality of the model.

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