A Framework for Exploring Tablet-based Tabletop Games

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Introduction

Over the last few years, the growth of the Web and the installation base of tablets have changed the way many board game publishers think about their products. Online platforms like *Brettspielwelt* have allowed people to play online versions of board games for years, and Alan Moon, designer of *Ticket to Ride,* reported that manufacturers have learned that a digital version of a board game can boost sales of the print-based game (Green, 2011). Tablet-based board and card games should, in theory, give players a seamless replacement for their print-based games, as the game can facilitate direct engagement between players sitting around the tablet. The reality of tablet-based tabletop gaming is that it creates a different experience than playing with a cardboard version of the exact same game. This presentation develops a framework for researching the differences between tabletop games and their tablet-based counterparts.

There are two significant ways in which a tablet version of a non-digital board or card game is different: the interface by which players engage with the game and the facilitation of the processes and mechanisms within the game. Creators of tablet versions of tabletop games attempt to keep the rules and mechanisms the same as the cardboard version, although sometimes affordances in the tablet version can change the impact of rules and mechanisms. In order to talk about the ways that players interact in a game, Nicholson's model of game-based player interactions (Figure 1) is used, which distinguishes between interactions that involve manipulating the game state, social interactions between players related to the game world, and social interactions between players not related to the game world (2010).
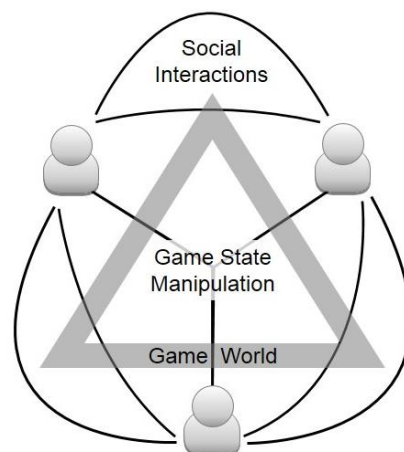
Figure 1: Model of game-based player interactions (adapted from Nicholson, 2010)

Human-Centric vs. Screen-Centric Games

The first dimension of distinction is where the players interact with each other by manipulating the game state. In a Screen-Centric game, this interaction takes place through a screen and therefore players are focused on that screen. Players interact with some type of an interface, and as the players engage with the interface, changes go on within the game state. The players are separated from these changes, as they are taking place in a different space than the players inhabit, which Juul refers to as the "screen space," as opposed to the "player space" (2010).

This is different from Human-Centric games, where interactions are in physical space. There is no interface that exists between the players and the game components, so the players are more integrated into the gaming experience because the game takes place in "player space" (Juul, 2010). While players are engaged with a tablet game, they are looking down at the screen and acting in the "screen space." Active players are in a different space than players not looking at the small tablet, which can have an impact on player interactions.

This suggests a series of research questions around interaction between players across spaces. Do players change how they interact with each other when they are shifting between a screen-based world and the physical world? When a player plays a screen-based game, does his or her mindset shift to playing against an AI, even if the AI is controlled by another person sitting at the same table? Does a hybrid game, where some of the components (such as cards) are physical and others are digital change the types of interactions that players have? Do players offer trades in games like *Settlers of Catan* more often in the physical version or in a tablet-based version? What implications does this have for game design and balance? Do players interact with each other less in a social fashion when playing a tablet version of a tabletop game than they would if they were playing the physical version of the same game?

Human-Facilitated vs. Computer-Facilitated Games

The second dimension of distinction is based upon how the game mechanisms are facilitated or enforced. In a Human-Facilitated game, the players are responsible for moving the changes in the game state forward according to a set of rules or algorithms. The game state is maintained by the players, and the game components are used to record the game state. In a computer-facilitated game, these game state changes are done for the players with a computer program. In some ways, this makes tablet-based tabletop games easier to play, as the computer will advance the game to the next point where a player must make a choice. Many games mask or quickly process these state change processes from the players.

This is a key distinction between digital and non-digital games as identified by Mosca (2011) and Leino (2012). In a human-facilitated game the players must agree upon the rules for the game to happen and they must manually maintain the game state. In computer-facilitated games the rules and game state are enforced by the software.

The research questions suggested by the difference in facilitation involve the mental awareness of the players about the game. Tabletop games are designed to be open systems where players have an awareness of the processes going on in the game, which makes them different from many digital games wherein the underlying processes are hidden from the players, who must "game the system" to figure out how to take advantage of the mechanisms. Are players able to make an informed decision if key mechanisms are taken care of by a computer? How does this change the enjoyment and immersion of the player? If the game is designed to teach a concept, is the learning diminished by having the computer automate key processes?

Another significant difference in human-facilitated and computer-facilitated games is the ability for the humans to adjust the game to their own desired play experiences. Some players adopt house rules based upon their own experiences or the experiences of others, and if the game is computer-facilitated, the players will not have the ability to make these changes unless the programmer has put those choices into the system. For example, many people play *Monopoly* with the house rule that any money from taxes and fees goes under Free Parking, which is then a bonus for landing on that space. This is not an official rule in the game, but if the digital implementation does not account for this house rule, then players are not able to customize the game experience. Some computer-facilitated games can be modified by players via hacking or modding, but unlike in human-facilitated games these activities require specialized knowledge and skills. Human-facilitated games, on the other hand, can be "hacked" or "modded" with little effort, or even accidentally if players forget or misinterpret a rule.

Conclusion

When exploring the differences between tabletop games and their tablet-based counterparts, it is important to consider the effect of each of these dimensions separately. Placing these dimensions into a 2X2 grid creates a research framework to guide explorations of the topic. Research into tablet-based tabletop games can help designers of these games understand when a tabletop game will be changed when ported to a digital version and how to create games specifically for a tablet-based experience that will take advantage of the technology but not detract from the interactions between players or their understanding of the game.

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