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# Virtually Together: Examining Pre-Existing Relationships in MMOG Play

Kelly Bergstrom University of Hawai'i at Mānoa

> Jennifer Jenson York University

Suzanne de Castell University of Ontario Institute of Technology

> Nicholas Taylor North Carolina State University

#### Abstract

Massively Multiplayer Online Games (MMOGs) have been a fruitful venue to study social interactions ranging from small temporary groups, to larger more permanent in-game social collectives such as guilds or clans. Much of this literature is focused on strangers becoming friends through MMOG play; comparatively, little is known about gameplay-based interactions between pre-existing romantic couples. To address that gap, this paper describes the methods used and subsequent results of an empirical investigation of the in-game actions and collaborations between couple and non-couple pairings as they played the MMOG *RIFT*. In our attempts to determine if couples display distinctive in-game behaviors, we found that players with a pre-existing relationship (friendship or romantic) behave in a similar manner while playing together. However, our findings indicate that avatar proximity is the key to distinguishing whether this pre-existing relationship is platonic or romantic in nature.

#### 1. Introduction

Massively Multiplayer Online Games (MMOGs) have been used to study social interaction from a variety of disciplinary perspectives and methodologies. Through these collective investigations, game scholarship has come, among other things, to understand interpersonal communication in digitally-mediated social settings ranging from small groups (Eklund & Johansson, 2010, 2013; Nardi & Harris, 2006) to much larger temporary groups such as raids (Chen, 2012; Malone, 2009; Silverman & Simon, 2009) or more permanent social structures such as guilds, clans, or corporations (Ang & Zaphiris, 2010; Downey, 2012; Milik, forthcoming; Paul & Philpott, 2009; Williams et al., 2006). Comparatively little is known, however, about how offline and online relationships collide via gameplay-based interactions between offline friends and even less about romantic couples.

In this paper, we address this gap by presenting empirical data drawn from a longitudinal study of the in-game play of pre-existing friendship-based and romantic pairs playing in a virtual world together. Building on the scant literature to date on the in-game interactions of romantic pairs, this research contributes to knowledge about how personal relationships may be evidenced in play, and whether and how the play of romantic couples can be distinguished from that of close pre-existing friendship pairs. This research, we argue, serves as a base that future research can build upon, to further investigate how game-based interactions may be different amongst players who have a bond originally forged outside of a particular gameworld.

In this study, all research participants played on lab-based computers. As such, it does not rely as much on self-report as it does on researcher observations made on-site as participants played together in collocated groups. We also propose a new method for analyzing in game behaviors of players using Noldus the Observer XT software. This software allowed us to examine proximity between avatars and led to one of the conclusions of this paper, namely that players who know one another are more likely to position their avatars close to one another in the game. Ultimately, our goal in this paper is to add to methodological and theoretical toolkits to support future research investigating digitally-mediated relationships, including how pre-existing relationships may influence observable interactions between players in a virtual world.

#### 2. Playing MMOGs as a Romantic Couple: A Review of the Literature

For quite some time now, game scholars have argued that games – especially MMOGs – offer an online space ideal for fostering new relationships. The collaborative game mechanics of an MMOG typically encourage players to interact and create social bonds. Nardi and Harris' (2006) early look at *World of Warcraft* describes the utility of temporary groups as a means for players to complete a difficult quest, but also describes how affordances of the game allow players to easily extend a successful collaboration well beyond the original impetus for banding together:

If party members enjoy playing together they may share their other quests. Quests are normally obtained from a computer character but quest-sharing allows players to continue to play together after the initial quest that brought them together is complete. If they like one another, players add each other to their friends list for future play. (Nardi & Harris, 2006, p. 152)

These short-duration temporary groups, Nardi and Harris argue, meet the characteristics of "knots" – groups of strangers who come together to collaborate on a specific task (p. 154). Successfully completing the task will, likely, lead to further collaborations, or even to a beginning of a friendship. More dramatic is the impetus for collaboration through "crisis scenarios" in *EverQuest*, as described by Yee (2008). Unexpected encounters with a hostile monster were designed to catch players off guard, and these monsters were powerful enough to necessitate that all players in the immediate area work together to defeat them. These unexpected attacks, combined with the harsh

penalty for death in *EverQuest*, force players to work together and in many cases, resulted in the formation of a new game-mediated friendship.

These and other foundational studies (see, for instance, Taylor, 2006) of collaboration in online gaming have helped lay the groundwork for a decade of research about the sociality of MMOG play. Since then, scholars have expanded on that early work to learn more about how groups coordinate over distance and time zones to complete shared tasks (Malone, 2009; Milik, forthcoming), or how group communication breaks down over time (Chen, 2012). Research has also explored how small changes to the way a game is structured can have a 'ripple effect', such as Eklund and Johansson's (2010, 2013) reporting on the introduction of the random dungeon finder. Here Eklund and Johansson argue that adding this automatic group matchmaking service to *World of Warcraft* had the unintended consequence of reducing the number and quality of social interaction among strangers, making it less likely for friendships to form organically, like those observed by Nardi & Harris (2006) or Yee (2008).

The early investigations of Nardi & Harris (2006), Yee (2008), and Taylor (2006) and others have helped set the stage for the study of relationship building in MMOGs. However, the majority of studies about social interaction in MMOGs building upon this work have remained focused on interactions between strangers, or on how social interactions within the gameworld allow for the creation of friendship groups outside of one's immediate geographical area. Gee (2005) and others (Duncan, 2010; Hayes & Duncan, 2012) have explored how an opportunity to discuss shared interests can act as an "affinity space", where what brings people together is a common endeavor – in this case - a shared interest in a particular game. Researchers have also investigated the way game-mediated relationships may become romantic in nature, such as the work of Ferdig and Pytas (2012). Despite entire anthologies about the intersections between love and gaming (see, for example, *Game Love* edited by Jessica Enevold and Esther MacCallum-Stewart), we still know very little about how pre-existing romantic couples play together and what, if anything, that is unique to the play patterns of those who have established relationships (romantic or otherwise) prior to collaborating in an MMOG environment. Research to date about offline relationships becoming digitally-mediated when discussed in the context of an MMOG, is primarily focused on acquaintances or friends.

Interestingly, one area of game-based social interaction that is consistently overlooked is the study of game-based interactions of romantic couples. When couples are mentioned, it is usually only to the extent that their play is obliquely referenced in broader studies of the sociality of MMOGs and/or games in general, such as research documenting the creation and maintenance of social bonds through gaming. For example, Kallio, Mayra, and Kaipainen (2010) offer a categorization of players based on their different orientations to digital games, drawing on responses reported in a nationwide survey distributed in Finland, supplemented by interviews and focus groups (pp. 329–330). In their categorization of players, they include romantic partners as one form of "gaming companions" along with children and friends (p. 340). No further exploration of how romantic partners play together, or whether and how their play differs from the play of friendship pairs, is offered.

Looking specifically at how some players come to play an MMOG, Williams et al. (2006) found female *World of Warcraft* players more likely to recruit boyfriends, spouses, or family members than male players (p. 348). Nardi (2010), on the other hand, reports that many of the female players she encountered as part of her ethnographic research in *World of Warcraft* were introduced to the game by a husband, boyfriend, brother, cousin or male friend (p. 153). An investigation of the gameplay habits of older adults by De Schutter, Brown, and Vanden Abeele (2015) supported Nardi's observations, finding that female players were often recruited by their male partners to begin playing a particular game (p. 1178). While their specific results contradict, the general pattern in all three studies is that players recruit their non-playing partners to join them in their MMOG of choice.

The studies mentioned above are typical of romantic couple's gameplay habits being mentioned in-passing while reporting on a larger study. When it comes to the study of romantic pairings specifically, there are only a handful of studies that substantively examine couples' MMOG play.<sup>1</sup> Key among these is the work of Carr and Oliver (2009) who study couples playing *World of* Warcraft as a means of observing learning in games, and Bergstrom's (2010) Master's thesis that explores romantic couples playing World of Warcraft as part of their shared leisure time. Carr and Oliver (2009) collected data through a series of interviews conducted in World of Warcraft, via text chat between the researchers' and participants' avatars, with ten players over the course of four months (p. 45) and found that "playing together" can have dramatically dissimilar connotations for different couples, ranging from carrying out the same activities in-game simultaneously, being in the same room while doing different things in-game (p. 49), to playing at different times but on the same World of Warcraft account. While their work is useful in documenting the different temporal and spatial configurations of couples' play, it is less concerned with exploring the in-game activities of couples playing in an MMOG at the same time. Carr and Oliver's (2009) and Bergstrom's (2010) studies of pre-existing romantic pairs playing together in MMOGs are useful for understanding the ways MMOG play fits into the everyday lives of couples, but do not shed much light on the difference intimate partnership might make to the ways couples play or interact with a gameworld.

Approaching couples' play from a different viewpoint is the ongoing work by Freeman *née* Zhang and her co-authors who are studying marriage as a game mechanic in *Audition Online* (Freeman, 2014; Freeman, Bardzell, & Bardzell, 2016). A free-to-play dance-oriented Massively Online Game, *Audition Online* breaks from many of the mechanics and affordances of fantasy-themed games such as *World of Warcraft* or *EverQuest* discussed thus far in this review. In *Audition Online*, players can choose to enter into a "couple mode" dance battle with an avatar of the opposite sex. Players wishing to have a more permanent partnership may choose to take advantage of the affordance that allows different sex avatar pairs to marry. Zhang and Herring (2013) found that players participating in in-game marriages devoted significant time to developing trust, dependence, and emotional investment in their *Audition Online* partner (p. 3), and that in-game marriages can indeed lead to players entering into romantic relationships in the offline world too.

This is not to say that all studies of couples are focused on the benefits of MMOG play. Ahlstrom et al.'s (2012) explored marital satisfaction among MMOG players and argue that these games can lead to marital strife. The authors define marital satisfaction as "the degree to which spouses perceive that their partners meet their needs and desires" (p. 2), and argue that when one member of a couple plays an MMOG, overall marital satisfaction declines. While their study did also find that some positive effects could come of shared MMOG play, Ahlstrom et al. focus their discussion on the potential negative impacts that MMOGs can have on relationships, as gameplay can lead to quarrelling, or not retiring to bed at the same time as one's partner (p. 16). Additionally, their paper takes a much more conservative and narrow approach to relationships than Carr and Oliver (2009) or Bergstrom (2010), in that Ahlstrom et al. focus solely on heterosexual relationships within the confines of marriage. It is also important to note that Ahlstrom et al. focused on gamer/non-gamer couples, while the positive reporting of the other studies detailed in this review were reporting on couples where both played the same MMOG as their partner. Given the scarceness of research to date which has deliberately examined the in-game activities of pre-existing "real world" romantic partners, we began this study by turning to players' own theories of romantic partnerships in MMOG play, as a basis from which to build a provisional understanding of couples' play.

<sup>&</sup>lt;sup>1</sup> We note that recent scholarship has begun documenting the game-based communicative practices of couples playing Multiplayer Online Battle Arenas (MOBAs; see Ratan et al., (2015), and Craig, Taylor, & Evans, forthcoming). While these games offer different play experiences than MMOGs, some patterns – such as female players having been introduced to the game by their male partners, and couples often carrying out complementary roles – are similar across these genres.

#### 2.1. Player Theories About Romantic Couples Playing MMOGs

Despite the relative dearth of work on romantic couples who play together, there is considerable player 'folk knowledge' about couples and MMOG play to be found in posts and comments on official gaming forums (among others). Player understandings of couples' play, while frequently misogynistic and in other ways problematic, can sometimes be more nuanced and developed than analyses found in academic literature, making these 'player theories' a useful starting point for investigating the player behavior of intimate pairs.

Playing with a romantic partner is, in some ways, supported by the design of MMOGs (as is the case in *Audition Online*) and in other ways, made more difficult; forum discussions explore these affordances and constraints, as well as the differences couples make to a range of game activities. One of the central aspects of couples' play that is widely discussed in online forums has to do with collaboration in-game, specifically optimal professions/class pairings for the couple playing together. While a variety of combinations turn up, pairings almost always involve some form of tanking class plus a healing or support class. Among the most salient discussions to our own study are those around couple-friendly spaces, such as less formal guilds, or party formations that are sympathetic to a couple. Typically, there is also reference to couple socialization in-game as the two players become a kind of "package deal." Commentary on couples' play ranges from supportive and/or humorous to dismissive and/or sexist. As we detail below, our own approach was as much informed by these online discussions that reflect players' practices with, strategies for and attitudes towards couples' play, as it was by the scant academic work on this subject.

#### 3. Study Design

The data presented in this paper was collected as part of VERUS, a multi-site mixed method longitudinal study that investigated whether offline attributes could be distilled from observing online play with MMOGs, such as *World of Warcraft, EVE Online, RIFT,* or *Maple Story*. Data was collected across the following sites:

- Interview, survey, and observational data collected at labs housed on two university campuses. Participants were recruited via posters placed around the university campuses and through referrals by previous participants (Jenson et al., 2013; Bergstrom et al., 2015; Bergstrom, de Castell and Jenson, 2016).
- Interview, survey, and observational data collected at public gaming events such as LAN parties, competitive gaming events, and gaming/fandom related festivals (e.g. local fandom conventions and game-specific events such as CCP Games' Fanfest). Members of the research team would approach potential participants to let them know about the study, or recruited via snowball samples assisted by previous participants who could facilitate introductions (Taylor et al., 2014; 2015).
- Survey and observational data of minors' gameplay in formal learning environments (e.g. a school library) and informal learning environments (e.g. an academically focused summer camp). Here we were assisted by teachers who recruited study participants on our behalf (Jenson et al., 2017).

Participants who were recruited for the lab-based portion of the study, or were approached at LAN events, were first asked to complete a short interview with a member of the research team. This interview served two purposes: it allowed the researchers to get basic information about a participant's previous gameplay experience (or lack thereof) to better tailor probing questions during their observation of play, but it also served as a means for the participant to ask questions and air any

concerns they may have with the study. The importance of the icebreaker is detailed in Bergstrom, Fisher, and Jenson (2016), where we found a difference in the tone and subject matter of their survey responses between those who did and did not participate in an intake interview. Specifically, participants who did not have the opportunity to chat with the researchers tended to assume we were interested in questions surrounding addiction and/or the anti-social elements of MMOG play and practiced disavowal e.g. "I like playing World of Warcraft but it is not the only thing I like to do. I have other friends and I have a job" (Bergstrom et al. 2016 p. 243). This disavowal was not present amongst participants who participated in the intake interviews who instead tended to provide longer and more detailed survey responses.

The goal of the survey, which was completed by all 272 participants, was to collect information about the games they played (both MMOGs specifically, and games broadly conceived), with whom they played (friends, family, other players they only knew online, etc.) and where they played them (e.g. at home, school, LAN events, etc.). After completing the survey, participants were invited to either play an MMOG of their choice or to create an avatar on a lab-owned account in *RIFT*, which was a newly released MMOG at the time. Each play session would last 45 to 60 minutes and each participant was invited to return to the lab for additional play sessions, some of whom returned multiple times resulting in upwards of four hours of footage of their gameplay. These gameplay sessions were recorded using ScreenFlow, an inexpensive software program that captures and synchronizes audio-visual data from webcam and screen, which were then imported into Noldus' The Observer XT for coding and analysis. Participants were asked to wear headsets with microphones, allowing us to record not only the interactions between participants, but also the small utterances and self-talks as they played through the game.

#### 3.1. Data Collection

The analysis presented here involved a subset of VERUS participants (n=32). The pairs described in this study played side-by-side with a partner (romantic, friend, or previously unknown play partner assigned by research staff). All pairs were asked to complete the same intake interview and survey (both administered individually) to gauge their experience with games generally, and with MMOGs specifically. Then they participated in a collaborative gameplay session where they both made their own avatars in *RIFT* and/or *Multiverse* (a virtual world built specifically for this study that shares similarities with *Second Life*), neither of which our participants had played prior to the study.

Our study involved an interrogation of the in-game actions and collaborations between romantic pairings as they played *RIFT*, based recorded gameplay sessions captured by ScreenFlow and analyzed using The Observer XT software. These observations were then compared and contrasted with those of friendship groups and strangers who also played co-situated in the VERUS labs. In total, sixteen pairs of participants are discussed in this article: four pairs of strangers, six pairs of friends, and six pairs of romantic partners (including male/male, female/female, and male/female pairs for each group). The purpose of this selection was to produce consistent annotations of in-game behaviors in order to analyze and develop more objective and empirically driven theories for identifying couples' play, by distinguishing between markers of co-situated participants' play, and co-situated romantic couples' play specifically. As a first step toward realizing the couples study design, researchers coded a series of test participants repeatedly (chosen from among both romantic and non-romantic pairs of participants) until they attained satisfactory inter-coder reliability (ICR) using the Noldus software's built-in ICR module. To supplement the coding, researchers took qualitative notes to document aspects of the sessions that were not captured by the quantitative codes, which were also considered when conducting the analysis reported on in this article.

#### 3.2. Limitations and Scope

In our early analyses of data collected via VERUS, we paid close attention to how the physical setting for data collection influenced our observations of play. In particular, we are aware of critiques of lab-based studies that may result in Hawthorne effects appearing in the data (e.g. Williams, 2010). Participants would know they were being observed; we made no effort to hide the fact that researchers were in the room and taking notes about their play. This choice was made to provide the opportunity to ask questions about the events we saw unfolding during the play session; members of the research team were trained to ask probing questions to better understand participants' motivation for making particular choices in the gameworld. During play sessions, researchers took detailed qualitative notes while observing the play. Then, immediately after the session was over and participants had left the lab, researchers would undertake a reflective exercise where they would look back on the session and make note of any instances where they may have influenced the events observed in the lab. In addition to the lab play sessions, we also invited participants to document their time spent playing an MMOG in their typical play environment, taking screenshots and writing captions to create 'travelogues' of their play.<sup>2</sup> This was completed at home (or wherever their preferred site of play may be) after their lab session and emailed to the researchers upon completion.

We also note that despite playing in the non-typical play environment of a university computer lab "...we were surprised by participants: by the time that they took to set up their avatars, the time they took naming that avatar, and time and energy they exerted in 'really' playing the game" (Jenson et al., 2012). Furthermore, participants were well aware they were playing on lab-owned accounts – creating avatars they would not have the opportunity to play again outside the study – and yet they took the time to equip better gear and amass currency (Bergstrom, de Castell & Jenson, 2016).

Through our observations in the lab, answers to the survey and interviews, and travelogs we were able to triangulate our findings and feel confident that our observations discussed in this article are not necessarily the result of Hawthorne effects. We do note, however, that our observations only represent a small slice of possible interactions between players in a platonic and/or romantic relationship. Outside the scope of this article are the possible avatar-to-avatar interactions between those whose relationship exists within the confines of an MMOG (e.g. have not yet spent time together offline) or the interactions that may occur when the pair is not playing co-situated in the same offline space.

#### 4. How Do Romantic Couples Play Together?

Building on conceptualizations from research literature, collected folk knowledge, as well as lab and fieldwork observations, we sought a framework for studying the play of couples that could yield characteristics distinctive of a romantic partnership in a given player combination based on ingame observed behavior. It was clear in the exploratory lab and LAN studies of individuals and small groups playing MMOGs that participants' in-game behavior is heavily contingent on the contexts of their play— including, crucially, players' pre-existing relationship to those with whom they are playing co-situated. Our participants confirmed what we know from the small literature on couples' play that for many of them, playing online games with their romantic partners is one significant way of spending time together. This inspired our investigations to better understand how playing co-situated might make a discernible difference to how couples played.

Based on a study of in-game actions and interactions, we observed orientations to MMOG play that we suspected might be unique to romantic couples, including sustained close avatar proximity, initiating and completing the same in-game activities at the same time, the selection of avatars with complementary capabilities, the use of inside jokes and pet names, and the continuance of closely

<sup>&</sup>lt;sup>2</sup> For more information about travelogues and the tools we used to collect this data, see Taylor, McArthur and Jenson (2012).

synchronized play while or after bickering. In the analysis stage, in order to investigate patterns of "couple" play in particular, and dyadic play more generally, in relation to the type of relationship between players (ranging from strangers to romantic partners), we selected sixteen pairs of participants to code according to a preliminary "couples schema" we developed based on player folk knowledge and preliminary observations of participants playing in the VERUS research lab.

Together, these observations and analyses provide the foundation for a theoretical model of cosituated play aimed at predicting pre-existing romantic (or otherwise intimate) relationships. This model evolved to include several core sub-constructs in addition to established "couple" behaviors, such as strategic avatar class selection and progressing through the game at the same rate. These empirically derived sub-constructs were based on a "proximity" construct (captured through avatar proximity codes for co-situated players), a "collaboration/cooperation" construct (reflected in codes such as "attacking same/different mob" and reflecting levels of cooperation between players) and a "synchronicity" construct, which was analytically derived from the analytical coding completed using Noldus' The Observer XT (herein shortened to "Noldus coding") and describes the degree to which players proceed through game content through the same objectives and locales and at the same pace. We elaborate each construct below.

#### 5. Developing Constructs

Our construction of a model for understanding couples' play was complicated by two empirically-derived observations: first, we immediately noticed that the collaborative play of participants with similarly high levels of in-game proficiency made it difficult to distinguish romantic from non-romantic pairs; shared expertise compels a degree of synchronous play, regardless of whether or not players share a romantic relationship. This is, as one participant notes, the "synchronized swim" of players pursuing a shared set of optimal strategies. Second, we noticed that female players only took on leadership roles in their gameplay sessions when playing with romantic partners. Our "couples construct" accounts for these complexities, offering evidence-driven theorization of the ways in which players' expertise with the MMOG genre intersects with and inflects their relationship to their co-players.

Our first pass at developing the couples construct involved manual coding of participant gameplay videos using a narratively driven, open-ended coding schema, supplemented by field notebased prose accounts of the session composed by on-site researchers. Further intensive free-hand coding involved identifying particular segments of the video, isolating segments that appeared particularly productive for exploring connections between in-game actions and real-world characteristics. After several iterations, we established a dedicated coding schema to analyze couples' play, made up of 22 codes and 8 modifiers.

#### 5.1. The Collaboration and Synchronicity Construct

In an attempt to codify empirically verifiable in-game behavioral indicators of real-world romantic involvement, we compiled a spreadsheet of all the couples, including romantic couples and friendship pairs that had participated in the study, focusing on basic information about real-world sex, avatar sex/class/race, expertise, survey data for questions relating to real-world relationships and play habits, and quantitative data generated from the Noldus coding. This spreadsheet, along with visualizations of the Noldus coding results, field notes, and qualitative notes, helped guide us to a number of preliminary hypotheses. First, we observed a similarity between visualizations across multiple romantic couples' Noldus data. The overall patterns of the data visualizations tend to match, particularly codes relating to questing, and combat (Figure 1). However, this informal observation also applied to a number of non-romantic pairings. Accordingly, we subsequently posited that "togetherness" was what was actually being measured by the couples construct: when two players

pursue the same in-game goals using similar-level avatars (particularly when they play together while co-situated in the same real-world space), their play patterns tend to match.

Figure 1 provides an example of what this coding actually looks like. Here we have combined the Noldus coding visualization for both romantic partners who played together in one of the VERUS labs. Highlights indicate that the avatars stayed quite close to each other for almost the entire play session. These participants also focused the majority of their in-game combat efforts attacking the same foes. Figure 2 shows the visualization of a friendship pair that stayed close to each other, but did not spend nearly as much time attacking the same monsters; rather than collaborating they stayed close but worked on their own objectives separately. These friends did position their avatars near to each other throughout their play session, but at times strayed apart (as indicated by the green bands). In contrast, no green bands are visible in the coding of the romantic couple in Figure 1 as they spent the entire play session either moving side by side, or in a leader/follower formation.

This was an important realization, because it enabled us to start thinking about (1) the ways in which "real-world" relationships can be empirically identified through observations of in-game behaviors, and specifically (2) the ways (if any) in which romantic couples can be distinguished from non-romantic pairs playing together. A further complication is that, as indicated by our research on expertise and how playstyles become standardized as skill level increases (Taylor et al., 2011; Bergstrom et al., 2015), the higher the degree of expertise for any two players, the more similarities we observe in their gameplay, even if they are not playing together. Figure 3, for example, shows the coding for two experts who played completely separately but who exhibited very similar game progression playing the same class and faction with the same level of expertise.

Likewise, it is difficult to determine whether the close synchronization between two experts playing together (or even an expert and a novice when co-situated) is a function of a pre-existing real-world relationship, or simply a function of their mutual expertise. These questions are clearly central to any work on couples play.

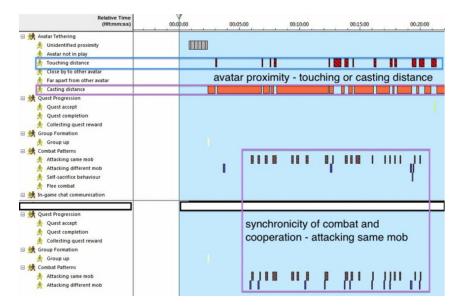


Figure 1: Example of Noldus coding of a highly synchronous romantic couple, expert-novice pair

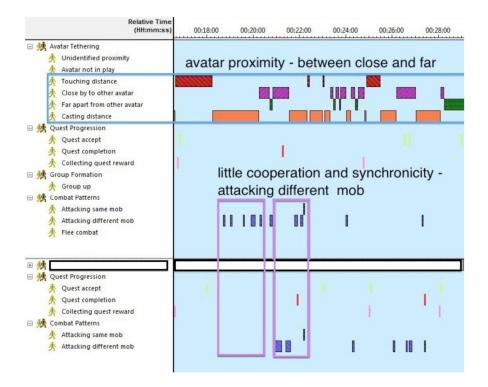


Figure 2: Example of Noldus coding for a novice friend pair whose synchronicity and collaboration were fairly low

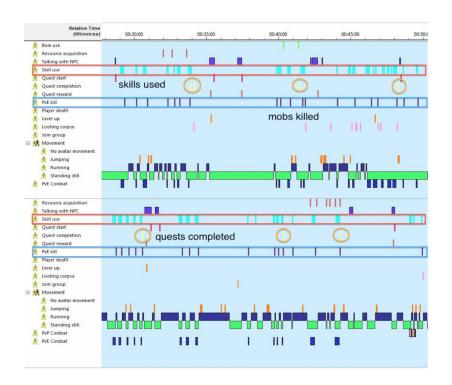


Figure 3: Noldus coding for two experts who played completely separately but show a similar style of game progression.

Building on the construct of "togetherness," the next working set of empirically driven hypotheses was dubbed the "synchronicity construct" (since it deals with dyads playing together, and not only romantic couples), and is primarily designed to identify the extent and forms of close collaboration between two participants, first to determine whether or not they have a pre-existing relationship (PER), and second, to see whether there is any basis for inferring that relationship is romantic. This list represents the primary expectations of what we have come to anticipate when observing two players with a PER playing an MMOG together:

- The first member of the PER to enter the game-world will wait for the second before advancing in the game;
- PERs accept quests around the same time;
- The first member of the PER to complete a quest will wait for the second to finish the quest before turning it in for a quest reward, and may actively help the second complete the quest;
- PERs accept quest rewards around the same time;
- PERs tend to engage in combat while in close proximity;
- PERs will help one another fight mobs;
- Overall, PERs will spend more time attacking the same mob than not.

Collectively, this list of in-game actions expresses the degree to which both players in a given dyad are committed to progressing at the same rate; they allowed us to determine the degree of synchronicity between two players. "Strong synchronicity" across all these indicators suggests either that the two players have a pre-existing "real life" relationship, or, as noted above, that they have similarly high degrees of expertise (they are equally "compelled" by the game into similar courses of action). The following in-game actions further refine the construct related specifically to romantically involved participants:

- Romantic couples tend to choose avatars that match their real-world sex (sex fidelity);
- Romantic couples are more likely to use intimate emotes (such as /kiss);
- Romantic couples are more likely to use the /follow command to automatically follow the other player's avatar;
- Romantic couples spend more time in touching proximity ("on top of").

Given a high degree of synchronicity, we believe that the presence of any of these indicators listed above suggests that the synchronicity is romantic in nature, not merely friendship-based or an artifact of similar levels of (ludic knowledge and skill-based) expertise (for further information about our theorizing of expertise in an MMOG see Taylor et al., 2011).

#### 5.2. Proximity

The first iteration of the "Couples Construct" included codes for "Avatar Tethering" (the intentional maintenance of leader-follower proximity between two avatars as players progress together in the game), "Group Formation" (how and when co- situated players formed into an in-game "party"), "Quest Progression" (point codes for accepting, completing, and being rewarded for in-game quests), "Combat Patterns," (duration-based coding for whether and how long players in a given dyad attack the same or different in-game monsters, or "mobs"), and "In-game Communication." These codes, derived from observations of participants, and refined over four iterations, were based on hypothesized in-game indicators of romantic involvement between players.

One note that may be of interest to other researchers working in this area is the difficulty of reaching consensus amongst multiple coders analyzing the same observational data. The ICR process

made evident several issues around interpretation and application of codes we had thought to be clear but which turned out to be complicated to gauge and apply consistently using uniform rules. For instance, before players are officially "in a party," other players' avatars are only visible to a player (and therefore to the researcher coding the observation) if the avatars are in the player's line of sight, which is very rare in a three-dimensional game featuring uneven topography and flexible camera views. Once in a party, other party members' avatars are visible on a player's "mini-map" as small blue dots, making it easier to code uniformly. Prior to grouping up, however, two avatars' proximity to one another is very difficult to discern, and this led to irresolvable ICR discrepancies. Eventually, it was decided that all pre-party proximity between the two given avatars should be coded as "unidentified proximity." To avoid losing too much valuable proximity data this way, we modified our protocol by directly encouraging subsequent participants visiting the VERUS lab to party-up from the start. While this may have inadvertently encouraged participants to complete quest objectives together, we note that we continued to observe participants completing in-game objectives solo despite being members of the same party.

In the final iteration of the "Couples" Noldus coding schema, we expanded the Avatar Tethering codes to reflect distance more accurately and to help us better distinguish between romantic and non-romantic pairs. We modified the code "on top of" to "touching distance" to represent a broader radius for the proximity that we hypothesized was shared more by romantic couples' avatars than by non-romantic dyads. We also added a medium proximity between "touching distance" and "far away" called "casting distance," based on the functional range at which spells can be cast on other avatars, a distance more likely to be found in non-romantic play pairings than "touching distance". This code was retroactively applied to all previously coded sessions (a total of 32), enabling comparisons across the whole data set using the synchronicity construct. To reduce ICR discrepancies, we devised a strict set of criteria for the application of "touching distance" and "casting distance" codes, and also had one coder annotate all sessions. A qualitative analysis of this data set suggested that romantic couples spend more time in both "casting" and "touching" proximity than non-romantic dyads and strangers. This is a significant observational finding - it means that it might well be possible to discern people who are in romantic partnerships simply by observing gameplay. Further, it demonstrates that 'real world' proximities might well be reflected in 'virtual world' play. In other words, players who are romantically involved mirror real-world characteristics - we are much more likely to stand and walk near someone we know and are romantically involved with than we are someone we don't know or do not have any sort of relationship with.

#### 5.3. Romantic Couple or Friendship Pair?

Returning to the questions we set out at the beginning of this paper we asked, how do romantic couples play together? And more broadly for the study of relationships, how do pre-existing relationships influence observable interactions between players in a virtual world? Our findings indicate that friends and romantic partners actually tend to play in a similar manner. Dyads who have a PER tend to maneuver their avatars to be nearby each other. This makes sense as by being nearby, they can assist their friend if they are in trouble, or work together for common goals e.g. quest objectives, collecting in-game resources, etc. Our findings indicate that it is the proximity that is the behavior most telling of the nature of their PER. Indeed, it is our observation that romantic couples spend more time in "touching distance" than non-romantic players, when not in combat. This non-combat distinction is necessary, since two melee fighting characters may find themselves in "touching distance" if they are attacking the same enemy at the same time. Two avatars observed in close proximity to each other will likely indicate a PER, but after combat ends if they stay close together, this small gesture is actually quite telling that the PER is likely romantic in nature.

Staying in "touching range" does not necessarily assist with any particular in-game mechanics; spells are generally not more powerful at close range than at the very edge of casting distance. Such

close proximity in *RIFT*, the particular MMOG we investigated, also does not allow for any particular avatar-to-avatar animated interactions. Even when typing out the "/hug" emote, an avatar will not actually reach out and embrace their target. And yet, a behavior we observed across the romantic couples in our study was that partners stayed within such close-proximity that if their avatars could reach out and touch each other, they would easily be able to. Again, mirroring real-world proximities.

In this paper, we have described the large amount of observation, analysis, and refinement of our coding schemas that resulted in the small but important distinction between friendship pairs and romantic couples observed playing in an MMOG. This suggests that there might be additional small yet meaningful intimate acts that are distinctive to couples' MMOG play that may not be captured in surveys or interviews, instead requiring sustained observation of in-game interactions.

#### 6. Concluding Thoughts

This work suggests there might well be much more to co-situated (virtual or not) play by couples and friends than has previously been observed and documented by researchers. We argue that lab-based studies of MMOG play and players, while certainly removed from "real world" contexts of play and players, has a lot to tell us about how players' relationships can impact their ingame activities and interactions.

The data presented in this paper is preliminary, but it indicates some necessary first steps in the empirical study of couples' MMOG play. We believe examining couples offers a unique opportunity to consider specific forms of relationships and how they "play out" in a virtual world. By observing the ways co-situated pairs of people (romantic and otherwise) play MMOGs together, we are able to look more deeply into the affordances of a game, the social and cultural environments of specific MMOGs and of games in general, the influence of extrinsic social and cultural factors, and how all of these co-produce patterns of virtual world play that can predict real-world personal relationships.

While beyond the scope of this paper, (and being mindful of the social and communicative specificities of digital games, and MMOGs in particular), this work can offer new methods and a new research trajectory for further examinations of the role of digital play in couples' lives. Craig, Taylor, and Evans (forthcoming), for instance, draw from qualitative survey responses of participants who play *League of Legends* with their romantic partners and find, in their descriptions of play practices, expressions of "relational maintenance strategies" that are indicative of positive, supportive relationships. Taken together, their findings and our analyses from our own study offer clear prospects for empirical validation of qualitative studies like these of how games play out and are played, in the everyday lives of romantic couples.

Finally, an important insight is to be gleaned from the central epistemological tangle we faced in the quantitative analysis of player action and interaction: namely, the difficulties we had discriminating, behaviour behaviorally, the complementary play of romantic couples (novice/expert or expert/expert) from the complementary play of expert/expert friendship pairs. If paired players who share similar levels of expertise can be as synchronized in their actions as players in an intimate relationship, can we ask whether expert play is, itself, a form of intimacy – albeit within a "circuit" of human and non-human bodies? Such a post-humanist theorization of the pleasures of highly competent play far exceeds the scope of this paper but, if pursued, might begin to more fully account for the agency of games not just in mediating, but in generating, modulating and amplifying the risks and pleasures of intimacy, with a loved one or with relative strangers.

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