Designing Social Behaviour through Play

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ABSTRACT

"All play means something" Johann Huizinga (Huzinga,J, 1949, page 7)

In this paper I discuss the strategic and discursive implementation of interactive play in motivating positive social behavior within children and young adults. Central to my discussion is the social role of play and the roles of the players, as described by play theorists Johannes Huzinga (Salen, K et al, 2004, page 465) and Richard Bartle (Salen, K et al, 2004, page 79) Play theory seeks to build meaningful relationships between game participants through the formation of social groups within the play world, referred by Huizinga as the magic circle. In this paper I examine the aspects of social play within the game design of three year-four undergraduate visual communication student projects.

I will outline how the students were asked to identify an existing social issue and user group to which they applied the key principles of play methodology in creating a 'circle of magic' and motivating factors as a means of instigating social change. In addition my discussion explores the play theories as discussed by Katie Salen and Eric Zimmerman (2004) as instrumental to developing game strategies as frameworks for keeping game users engaged within the social space. I concentrate on how each project encourages player social interaction thus enabling users to customize and manipulate their individual experience, while remaining an active participant within the larger social circle.

Keywords
Social Play, Social Behaviour, Meaningful Play, Circle of Magic, Game Strategy, Game Design

INTRODUCTION
Social interaction within a play environment is an increasingly popular aspect of the play world, with the influx of social networking games, communities and clubs readily available. However although play in essence is a form of social interaction, this does not necessarily manifest into a social community, or does it need to.

Very few Play theorists describe the act of building social communities a necessity to a meaningful play experience within the play world. Johanes Huizinga(1949) is one of the

few In his study " homo Ludens" he explains that the play world *"promotes the formation of social groupings, which tend to surround themselves with secrecy and stress their difference from the common world by disguise and other means." (Huzinga, 1949, page 13)*
This becomes relevant when we look at the larger context of the play world itself. The play world can comprise of a variety of factors, but the leading factor most play theorists agree on and defined by Salen and Zimmerman (2004) is that play *proceeds according to rules that limit players* (Salen, K et al, 2004, page 79)

If a play world then is comprised by a set of rules which limit players, what if the players limitations change and evolve through the act of social play? This is defined as *Transformative play* (Salen, K et al, 2004, page 305) which is a form of play activity particularly motivated and modified by social interaction between the players and the play world. "*Transformative play is an instance of play when free movement within the rigid structure of the game play changes the game structure itself"* (Salen, K et al, 2004, page 475)

Rules and structure need to exist within the play world to maintain the tension and motivating factors, which drive the players. However the transformative layer enables players to transform social relationships and how they see themselves within the play world. Players invoke transformative actions through social interaction and the evolution of social communities and alliances. The play word is still surrounded by a magic circle, which DeKoven (1978) describes as a set of *Boundaries help separate the games from life.* And that the magic circle has a *critical function in maintaining the fiction of the game so that aspects of reality with which we choose not to play can be left safely outside. (DeKoven, B, 1978, page 38)*

In Social play, Although the play world does sit separate from the real world with it's own rules and structure, the social relationships which players bring into the play world will have an affect on the way the play world evolves. The amount a real world situation will affect the play space, is defined by whether the play world is open or closed. Play worlds, which are dominated primarily by rules, tend to be closed, whereas play worlds, which encourage a culture to evolve and adapt the play context, are regarded as open. These play environments are more influenced by the social constructs the player may bring in from the outside world. Closed Games have a high rule content and are more often governed by a high Lusory Attitude (Suits, B, 1990) where the rules are deliberately defined to take a player down a specific path which might be counter-intuitive to the ideal path of the player. The Lusory attitude is deliberately invoked to create a challenge within the game and to maintain the meaning of the play world as separate from reality.

In an open social play world, which closely references the real world, the play actions still require rules in order to function. However these rules are defined by the way the players socially interact with each other. It is also a world where real-world scenarios can be referenced and explored in a playful manner still within the safety of the magic circle. In the play world the system can be broken down into three schema's which define whether a play world is open or closed. If a play world is considered to have a heavy rule based focus it is closed. If the motivator is through play it is open and closed. If the play world is motivated by cultural contexts it is considered open (Salen, K et al, 2004, page 96)

The safety of the Play world within the magic circle is what enables the players to feel confident to explore the context of the game. However it is the players' interrelationship with each other that ultimately defines the social tone of the game. Bartle (2011) defines players as belonging to four specific types, which motivate their actions within the game. Achievers who seek experience and power, Explorers who want to explore the world, Socializers who want to connect with each other and killers, who seek to undermine the behavior of the other players. (Bartle, 2011, page 465) The design of the games is defined by the standard of social interaction of the players. Games when developed with the user's social interaction motivators in mind can be a powerful tool to discuss social behavior- in particular to reform negative interactions.

The Assignment Background

The Students played a rotational round of a popular student card game "Presidents" [1] to establish themselves into groups. This exercise set the tone to enable students to consider their own motivations when developing grouping within a game context. Some students played as Achievers, seeking to win each hand at all costs, whereas others played more strategically as Socializers seeking to lose hands in order to end up in specific groupings. The assignment asked each group of four to select a-

Context- social, political, environmental, spatial or political
Mode of Play- Educational, Strategy, action/adventure, ubiquitous, Role-Play, Level, Simulation and Puzzle.

The mode of play and contextual situation informed the development of their game. Students were encouraged to build the context around the needs of an existing user group or organization. Play itself was used to explore different potentials of implementing play in different disciplines. Each group also needed to take into consideration the platform of interaction and how their user group could engage with game play through various modes.

Each group spent the first six weeks defining their mode of play and context in relation to a chosen use group and developing a play community. The next six weeks were spent developing a design solution for their play world, play testing and the presentation of a design pitch.

A majority of the student groups chose a social context for their play world. The three projects I will discuss include Binge drinking in young women, Anti-social behavior with preadolescents and the university culture of first year students.

The students approached each target group through an analysis of their existing social community and behavior both positive and negative and framed a play world around their findings. Both the negative and positive interactions of the players formed important motivating roles within the play world that could be exploited to achieve a positive social construct.

CASE STUDIES
Case Study One: Flossin by Team PRD [2]

Flossin is the more open of the three play worlds. The design was developed to engage pre-adolescences in positive social behavior within the school playground. The Students of Team PRD drew on the research of Lewis and Siegal [3] who state *"distress from children's relationships with peers' accounts for 23% of the causes related to them being unsociable."* The students expand on this by discussing the *"dynamics of inclusion & exclusion"* (Adler, 1995) through the development of cliques. [4] [5]

Team PRD developed a game in which preadolescents (Children aged between 7-12) swap and trade bracelet charms to build social communities and groups. Each child will purchase a set of six charms for a nominal fee. The charms can be customized and designed through a web-based community, however the interaction of swapping, sharing and trading charms is done in the physical world. When a child signs up to "Flossin" they are automatically given a palate of thematic icons and symbols with which to design their charms. Each charm contains a USB stick, so the design is downloaded specifically to each individual charm.

The initial symbol palate represents to theme. Themes are randomly generated- so a child might receive the "monsters" palate to begin with so they can make monster themed charms. The initial rounds of the game involve the children swapping, selling or gifting their charms to win points. Gifting a charm is worth more points. The transaction needs to be logged with the gifter and the giftee so the points can be received. Once the player reaches 100 points they are eligible to start completing topic quizzes, which enable the player to unlock higher levels of charm palates and start to develop a set of charms, which reflect their interest and personality.

Figure 1: The Flossin Game pack- including instructions, charms and the bracelet.

Players can swap charms to gain a majority of charms within a specific area, or they can trade a quiz with another by swapping their entire charm set. Some topics might be regarded as valuable or elusive due to the probability of them becoming available, they might also be valuable as the quiz is specialized and requires specific knowledge to answer it.

Players can commission other players to design charms. Players can also group together to collectively answer a quiz thereby sharing the charms. Once players have completed a quiz another with be randomly allocated as the next level, or depending on points they can choose to complete the next level up of the completed quiz topic.

Quiz topics, which are more general, do not earn as many points as more specialized

topics, so adolescents who stick within their general cliques may not score as highly within the game as adolescents with a specialist skill.

When players achieve high quiz scores within the upper levels they can earn quiz specific point which translate into vouchers to purchase quiz related merchandise eg: music, books or makeup. The quiz is conducted online and adolescents will need to elicit help from each other to answer questions not in their scope of expertise. In this instance they will need to recruit the aid of more knowledgeable adolescents in order to answer the level, lending opportunities for new friendships to be formed.

This play world is open encouraging players to bring their existing social connections and interests into the play world to better the game. The key factor of the game was to recreate a social hierarchy where every child was valued and respected due to their personal skill within a specific area. It gives an opportunity for children to achieve peer esteem through showcasing their personal knowledge and interests.
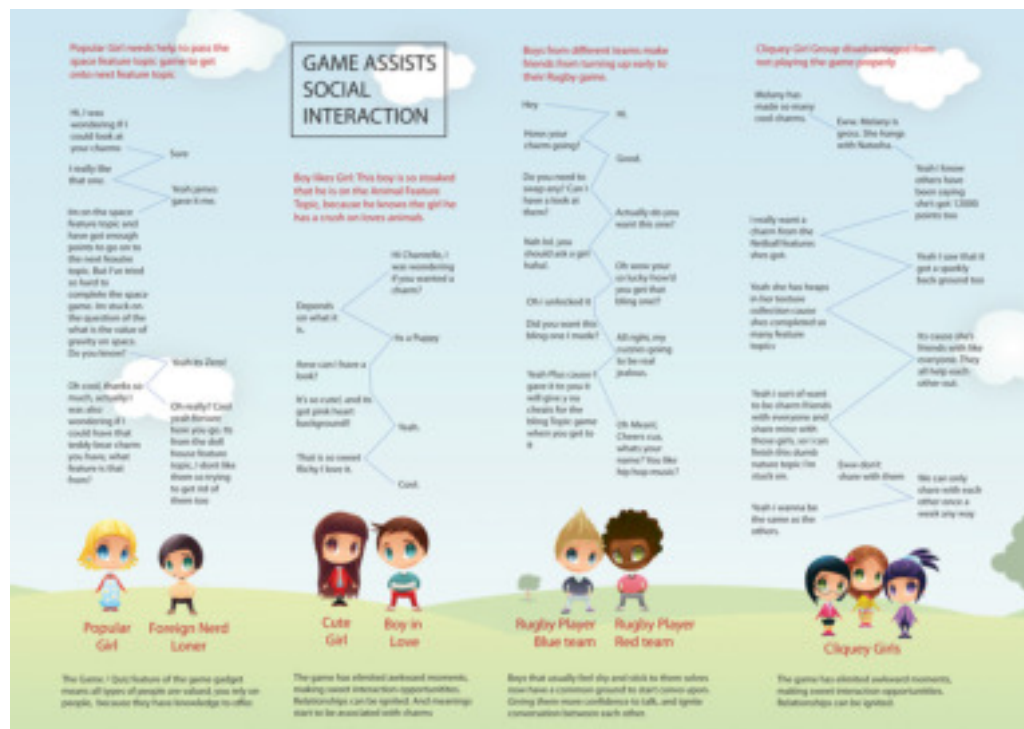

Figure 2: The "Flossin" test player scenario descriptions

The goal of Flossin is to make players feel valuable, important and unique through the exploration of there 'own interests'. The play world remains open to enable existing social groupings, skills and interests to directly inform the development of the game. Transformative play is able to occur through the evolution of player's relationships to each other and the play world, through sharing, swapping, creating and bonding over common interests. It is theorized that Of Bartle's(Bartle, 2011) four player profiles Flossin was less likely to attract players from the Explorer role, as the game play is relatively simple giving them less to challenge them. Achievers would use the play world to achieve points and therefore social status, and Killers would use the play world to bully and undermine other players. However a majority would be socializers who would find the swapping and sharing aspects of the game a motivating factor in the construction

of their social groups. They would be likely to use the game to bond with their peers and make new friends with children they would not ordinarily associate with under the guise of the play world.

Inevitably with Flossin being an open-ended system, there is potential for negative behavior, particularly from the killers, and the game-play has been designed with the intention to mitigate some negative scenarios. As charms as traded in the physical work there is some potential for children to be bullied into giving up their charms. However the child can deactivate them online and in order to collect points both sides of the transaction must agree. Children will form Cliques, however as the ranking of the theme's are random, some topics such as math and astronomy might be ranked with a higher point score than rugby and hip-hop, therefore encouraging children to seek new connections with each other in order to achieve success in the game. Although only play tested at a structural level- this team closely aligned their game to existing school yard play patterns and extensively tested scenarios of play with user profiles to ascertain how the game could help children with bullying, shyness, and fitting in.

Case Study Two: Beware, The Almich Virus by Team Goninjim [6]

The second case study "Beware, The Almich Virus focuses on building a stronger relationship between design students, particularly final and first year students (18 year olds) on campus within a University environment. The students identified a need for a realm of playful interaction, which would facilitate a stronger sense of community on campus. Traditional fraternities and school-based houses are not common in New Zealand, so community and culture on campus needs to be created from other means. The campus itself compounds this geographically. The university has moved premises several times during its long history. It's current home is in the old National Museum Building, while a custom building is under development. Although a dramatic building full of presence, students feel they exist in the fringes of the space, and have few opportunities to have impact and create space of their own. This has been problematic for first year students who easily become lost and feel disconnected to the space and other students.

Team Goninjim wanted to turn the campus into a magic circle and design a community, which would offer "a genuine sense of belonging that derives from playful exclusivity". Being a first year student to a new campus - leaving home, flatting, adjusting to a new system of school in a new town were all overwhelming factors to consider. Team Goninjim wanted to establish a stable friendly environment which would provide a perfect opportunity to introduce new students to university culture - which is the heart of this project. The play word they created is the more closed of the three student projects. The style of the game is a mystery, which players need to solve. The play world provides an imaginary game layer which existing above everyday campus life

 The play world proposes that descendants of Dr. Oscar have reactivated the dormant Almich virus that Dr. Oscar's son buried under the foundations of the national museum during it's construction. *"Dr Oscar had forseen the coming of the informant age in which the entire world's knowledge would be known by a network of individuals. He hypothesized the radical power that this network would have on the minds of the ignorant. They would become powerful, he knew, a power to be harnessed by the knowledge keepers. Dr. Oscar knew of the potential destructive power of this network and spent his life working on a system by which the network could become fragmented and eventually destroyed."* [6]

The play world starts with a recruitment phase where players are lured to a website through a set of bizarre events and obscure visual and interactive marketing on campus, including flash-mobbing and augmented reality. Through the web portal potential players are assigned secret squads or approximately ten, first year university students. The students are randomly assigned and instructed to keep their group identity and mission secret from other groups.

A small group on unknown game- masters oversea in real time the entire game and governs the Meta-game. Second, Third and Fourth year students (aged 19, 20 and 21) are involved in the development and implementation of sectional games which run at specific times during the year.

"Second, Third, and Fourth years' are also involved. They are over the hurdle of newness that defines the first-years, which can be built into a hierarchy, allowing them more responsibility and agency in the game." [6]
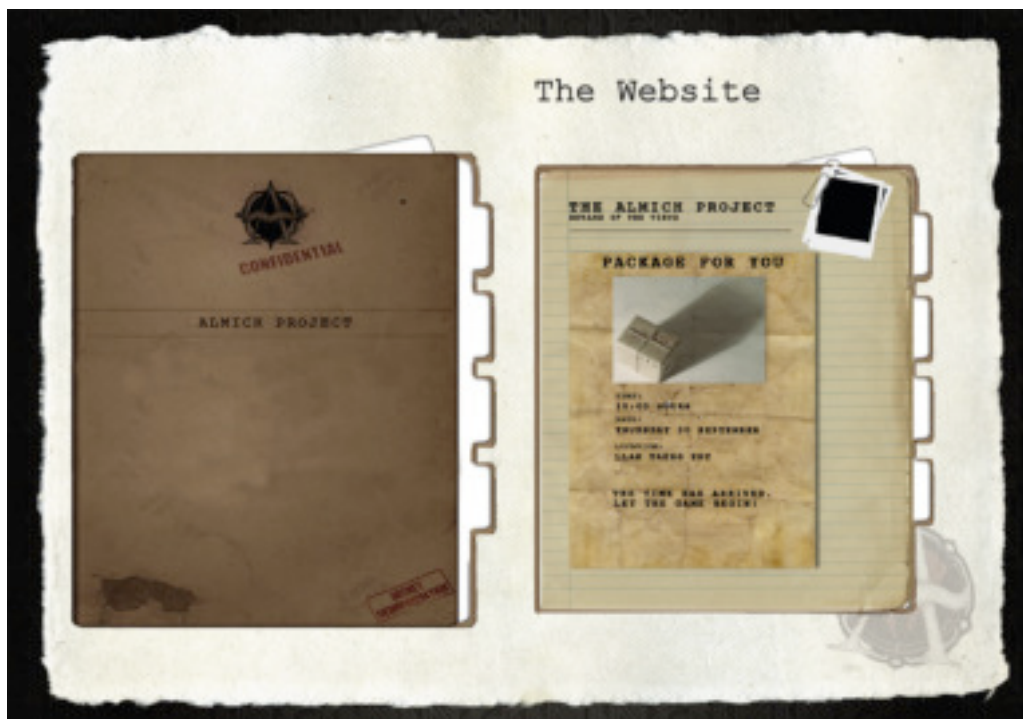

Figure 3: Beware! The Almich virus webpage design

The mini games within the sectional games accrue points as they are completed, and enable each squad further advancement and understanding of the greater game narrative. Squads are in competition with each other, but play separately. The mini games only give them a small element of the puzzle and for each squad the experience is different, so there is no incentive for squads to cheat. Each squad has it's own theme and language and needs to support each other in order to complete tasks.

The most difficult element to implement within this play world was the hook, Players had to be curious enough to explore further the meaning behind the motivating elements they were seeing. As this play-world recruited the individual rather than an entire social group it was harder to design a hook, which would be universal enough to engage a wider

audience. The players develop a social community within the play world rather than bring their existing friendships with them.

This play world- although open in terms of how each squad inter-relates with itself, provides a very constructed play environment. Mini games had a set narrative and function towards resolution, although their success relied heavily on the squads working together as a team. Some mini games require full attendance of all members of the squad.

Team leaders within the upper levels had more transformative affect over how the narrative played out. It was their role to observe the game play and to moderate the play to suit the needs of the squad members.

Social behavior would generally be positive within this play space. Meta-gamers would have little tolerance to "Killers" (Bartle, 2011) in the form of "spoil sports" and "cheaters" as without the ability for squads to directly alter the larger game play, this behavior could seriously jeopardize the entire game structure. There is a general collegiality amongst design students on campus, with no evidence of negative behavior between years. What prevents students from forming closer bonds across years is simply the need to provide a means for them to communicate with each other.
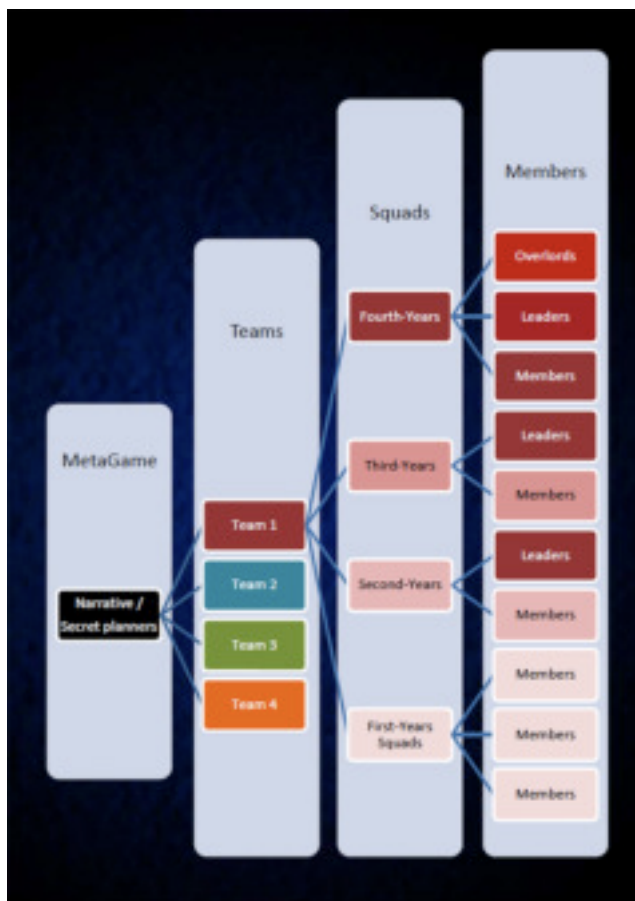

Figure 4: Beware! The Almich virus play world structure and hierarchy

Beware the Almich virus is more likely to attract explorers who see the game as a challenging space to navigate. It would also appeal to achievers who would receive clear feedback in the form of incremental rewards. Socializers might also enjoy the play space, however they will need to keep abreast with the goals of the squad and not become distracted by new friendships.

This play world in comparison to the other case studies shows the most potential for players to exhibit a sense of Lusory attitude, rather than social play, through the rigid structure of interaction that lead player's along a specific path of play. Although the game itself does not overtly motivate positive behavior (unless through goal achievement), the act of bringing strangers together and getting them to play together towards a common goal does bring out positive interaction and a feeling of belonging. In play testing it was competition and the motivation of Achievers, which could potentially undermine otherwise positive interaction. If one team was seem to be succeeding over another, or key members of the squad dominating the group then other players felt left out and undervalued and more likely to transition into killers. Further development into the structure of the mini games could have potentially mitigated this response.

Case Study three: 1000 Words by Team Playasaurus [7]
This third case study is A Thousand Words designed by Team Playasaurus. A Thousand words is an interactive video campaign promoting a safer drinking culture amongst young women. Binge drinking (Drinking in excess) in young women in New Zealand is increasing at an alarming rate, and with it comes associated health and social issues. Various awareness campaigns have been initiated at a government level to initiate change; however most campaigns although informative do not give young women a need to acknowledge or interact with them. Team Playasaurus wanted to create an open play space where young women can safely revisit their drinking behavior, reform, find community and get help if needed. Team Playasaurus felt that a play world was the perfect space to initiate a change in social behavior as they could attract players through their own social communities and lifestyle and empower the players to initiate their own personal social change through play.

Players are recruited from local bars and clubs where a photo booth and photographer is set up to take Polaroid photos. The Polaroid's are accompanied by a card which eludes to the narrative of the game and invites players to txt their response to the question on the card in order to win prizes.
Players are invited from the card to visit the web community to find out the answer to the question and to see if they have won a prize. The first webpage they encounter gives them the opportunity to visit the "confessions board" or enter the play world. Any member of the public or play community can leave an account of binge drinking behavior at the confessions board, but only members can read the confessions anonymously. The proportion of negative or positive behavior documented in the confessions board impacts of the proportion of "winners" within the interactive narrative on any given night. For example if there was a high prevalence of binge drinking witnessed, then there would be lower probability of points awarded or prizes gifted for any 24 hour period.
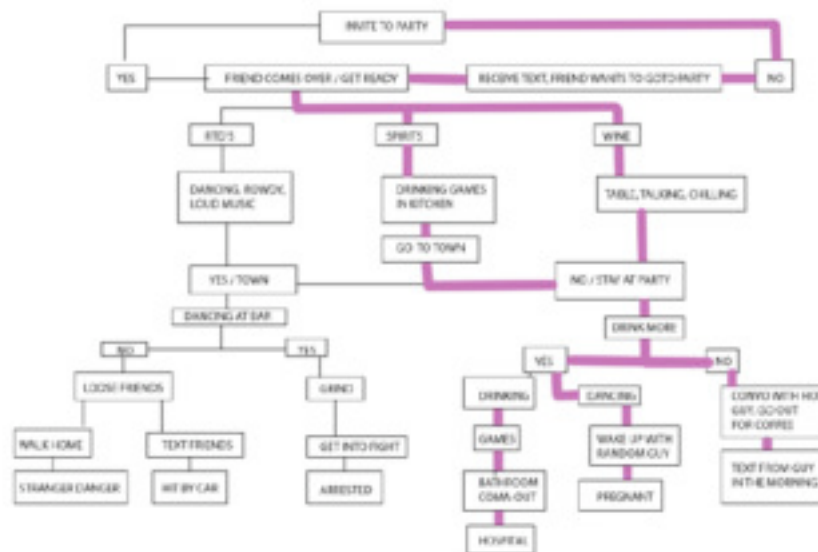
Figure 5: A Thousand Words interactive film narrative structure

When players join the play world they are invited to explore the daily interactive narrative, which invites players to explore a pick-a-path film which documents the probably outcome of the community the night before. Some nights will have a lower probability of binge drinking therefore players will accumulate more points which can be redeemed on prizes. If the overall behavior of the community is positive payers who receive good scores in the interactive film will go into the draw to win a free "safe" party.

Players can create online profiles to connect with other players and share results. There are opportunities for players to anonymously "spill" their confessions, which can then seed back into the probability of the game. Players are encouraged to help each other to create a more positive output for the community, as it is the attitude of the community as a whole, which enables prizes and rewards.

The community links to mentors and organizations who they can chat with online if players are troubled. The video narrative changes each week depending on the confessions submitted so interactive story can remain current and applicable to the players.

Players are encouraged to return to the site regularly to win prizes and advance through the play world and see how the community is adapting.
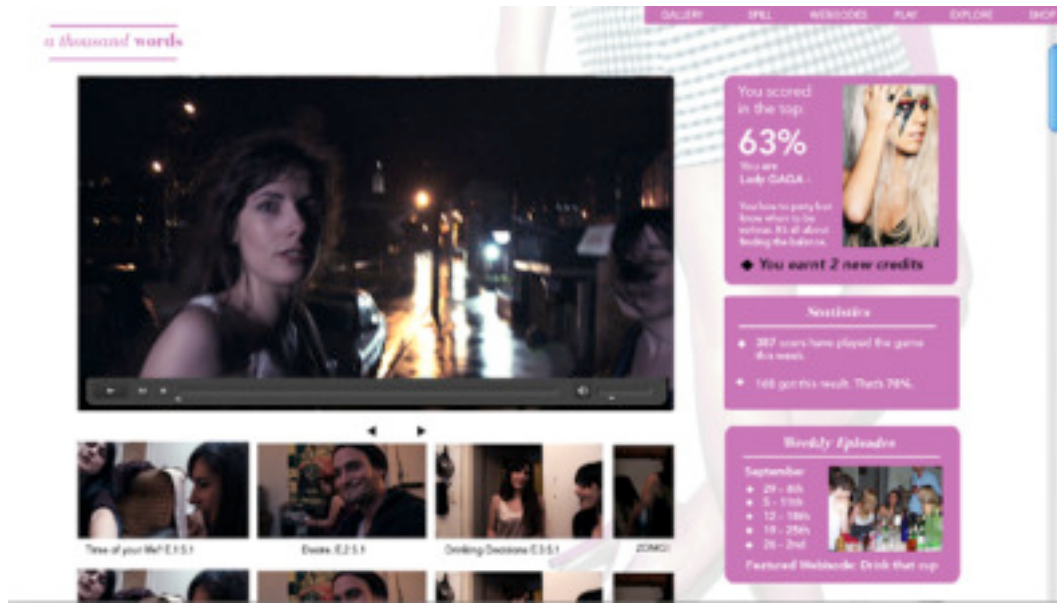
Figure 6: A Thousand Words webpage design

Of all of the Student projects this was the one that had the most play testing and feedback from their target audience, including interest from teen drinking agencies that wished to develop it further. These are some of the comments form their play-testers.
-        alcohol poisoning nearly killed me.
-        ow no, alcohol poisoning almost killed me :O
-        I chose not to drink more and head to the lounge
-        I'm Lindsay lohan ! the shame !
-        Ewww Lindsay, gross. Better change my ways...
-        AMAZING! That guy is hot, I'd stop drinking for him haha!

This play world has the most open format of the three, with the entire play world substantiated and sustained by the pre-existing social attributes of the players. This could frame the play world on the edge of what Huzinga would regard as a "magic circle" however it has a great capacity to inform positive behavior motivated the transformative play attributes of the world. The play world was most appealing to socializers who used the world to share and connect with their friends. Achievers appealed to the point accruement and the ability to manipulate the narrative outcome, however inevitably in order to achieve more points this would enforce positive behavior.
A thousand words did however attract a higher proportion of Killers, who saw the world as an opportunity to manipulate the community and win prizes without positive participation. Team Playasuarus proposed several ways of using positive reinforcement and the overall tone of the community to reform killers. This is an example of their "Cheater" Profile and how they propose the play world treats this player.

"Tash goes out to Courtenay place on a Saturday night and gets smashed. She gets handed a card in town and is lured in by the possibility of free stuff. She goes home that night and flicks through the video not really caring just trying to win something. Once going through the video narrative with her random selection of answers she gets enough credits for a free lip-gloss voucher (instant gratification). Seeing she can win more stuff on the website she sets her aim on the free bar tender party which is drawn each month.

She returns to the site twice a week for the next three weeks gaining credits but not caring about the content."

How can A Thousand Words help her?
- By incorporating a community-wide statistic into the game, Tash needs to also rely on everyone's good behavior in order to win. This would encourage behavioral changes within groups and in turn, the community.

- Remind her of her personal aspirations. This is in the form of the credit system. She can create a dream list of her desired products to purchase and change her ways to do so.

- By seeing others having a good time and her friends being tagged, Tash will hopefully change her ways and catch on to the system. The play section may also keep her hooked, as it offers tips, games, quizzes and polls on hair/beauty etc as well as alcohol.

- Empower her and appeal to her need of independence and rebellion

This community play world for young women responds to peer influences both positive and negative. This play world offers them a safe space, which exists along-side reality where they can explore the extents of binge drinking and hopefully be empowered towards a more positive outcome.

CONCLUSION

In conclusion each of the play world designs, seeks to facilitate positive behavior within the interaction of its players, to varying degrees of success. Whether the play world is open or closed makes some difference as to how much transformation can occur within the play world. The ability of each play world to invoke "positive" social behavior is slightly more complex and does depend of the social context of the players to start with, and how much transformation they are willing to undertake, in particular the schema (Bartle, 2011) which players associate with as their motivating factor within the game, and how the social community element is able to adjust the affect of schema association.

In the case of a thousand words, young woman are encouraged to adjust the play patterns and the behavior of their peers, thereby reforming polar opposite Killers into Socializers. Beware! The Almich virus players create their social network within the game, where socializers need to work hard to give their presence meaning is a strategy and achievement driven game. Flossin enables players to bring their social groupings into the play world, and at the higher levels adapt and adjust them to create new ones through achievement.

Some players only wish to skim the surface of a play world and take their cut from it, others are move motivated by the competition. Some players may simply play the interactive narrative within A Thousand Words every week simply to win prizes. However in this instance they are not having much effect on the meta game and the community at large will attempt to reform them, therefore the play pattern will not evolve to any level of achievement for this player. Players need to socialize with and motivate the community in order to receive the benefits of the play society.
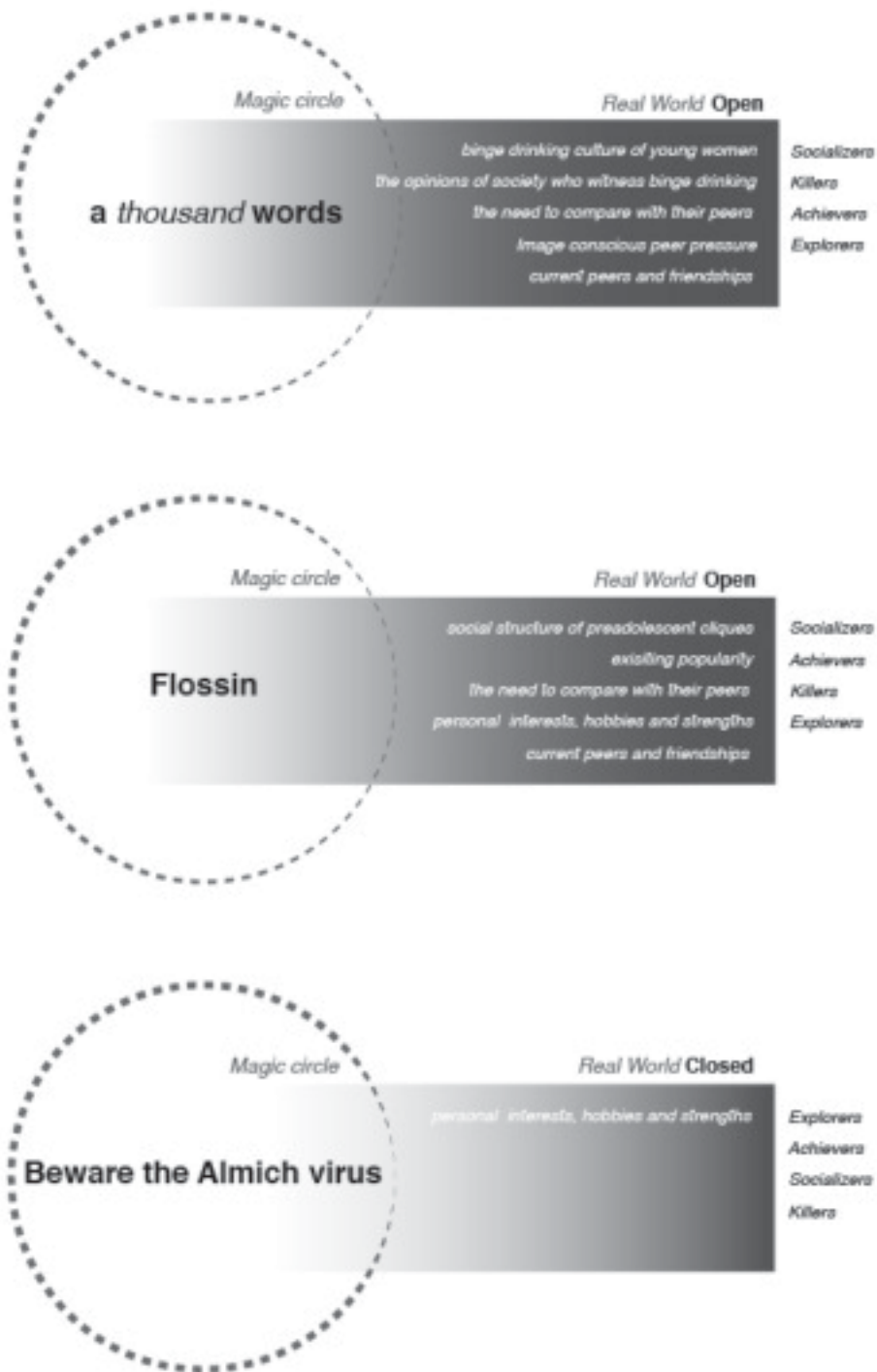
Figure 7 Diagrams indication the social conditions players bring into the play world and whether it is open of closed.

Each project describes systems of social development. The instigation of more positive behavior tends to stem from the game play itself enabling players to reward positive interactions in fellow players. Competition and material rewards are the likely factor, which contributes to players putting their own needs above those of the play community

and their fellow players. However the ability for players to reward each other, by either gifting charms if a player helps another with a quiz, or players changing the outcome of the play community through encouraging each other to foster better drinking habits. Player motivated rewards are potentially more tangible and real than rule driven ones as a motivator to positive social behavior.

Each group has sort to advance social play world it is social interaction that is the motivating factor to enhancing game play, not the rules. The rules merely guide the players to an end objective, but do not stipulate the mode of social development. Huizinga (1949) was more of a play purist- he believed social groupings were created within the play world, and he is one of the few play theorist who believes the development of social grouping within the play world as being important to the success of play.

He was a strong advocate for a closed play space within the magic circle. This research theorizes that it does not matter whether the play space is open or closed in order to create social groupings. An open play world allows player to bring his or her own social constructs into the play world. Whereas within a closed play world people build their own social constructs within the space with the players available. People are naturally social beings; we will want to build a sense of community regardless of where we are. What do appear to matter is our own social values and morals, which are exemplified in the way we respect and reward our fellow players.

Figure 8: Players de-coding a clue within the Beware! The Almich Virus game.

ENDNOTES

[1]   http://www.pagat.com/climbing/asshole.html

[2]   Team PRD are Amber-Jean Hornsby, Roshan Patel and Danielle Miller

[3]   The research by Team Flossin citing - Lewis, C, Lewis, M & Siegel, J. 1984. *Feeling Bad: Exploring Sources Of Distress Among Pre-Adolescent Children.* American Journal of Public Health.

[4]   The research of Team Flossin citing - Adler, P & Adler, P. 1995. *Dynamics of Inclusion and Exclusion in Preadolescent Cliques.* Social Psychology Quarterly.

[5]   Hornsby, A.J, Patel, R, Millar, D. 2010. Solving preadolescent antisocial behavior through play, The 7th annual Australasian conference on Interactive Entertainment. *http://ieconference.org/ie2010/*

[6]   Schroyen, J, Hartwick, M, Tay,J. 2010. University culture and community building, The 7th annual Australasian conference on Interactive Entertainment. *http://ieconference.org/ie2010/*

[7]   Team Goninjim are Melissa Hartwick, Joel Schroyen, JoAnne Tay and Nancy Viskovich

[8]   Team Playasuarus are Charlotte Corrigall and John Conly

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