Online Community Building Techniques Used by Video Game Developers

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Abstract. Online fan communities are an important element in the market success of a videogame, and game developers have begun to recognize the importance of fostering online communities associated with their games. In this paper we report on a study that investigated the techniques used by game developers to maintain and promote online communities within and around their games. We found that game developers consider online communities to be important to the success of both single-player and online multiplayer games, and that they actively support and nourish these communities. Online community building techniques identified in the study are categorized and discussed. The results represent a snapshot of current developer thinking and practice with regards to game-based online communities. The study augments existing research concerning the relationship between design features, online community and customer loyalty in new media, Internet and game-related industries.

1 Introduction

Video gaming is increasingly a social pastime and social interaction has become an important motive for many players. These players are drawn to games that enable cooperative and competitive interaction with other people. Multiplayer games such as LAN games, online shooters and MMORPGs are salient examples of social gaming and comprise a rapidly growing segment of the game market [7].

Many games acquire a large following of fans who want to come together to discuss the game, share information and resources, and where possible play together. Fan communities form around both single- and multi-player games. Vendors recognize that having a community of fans based around a game has a significant impact on a game's commercial success [7]. Communities can promote a game by encouraging and supporting new users, developing strategies, plots and content and by simply talking about the game. Discussion in gamer communities takes place in online forums and chat rooms, both vendor- and player-operated, and of course offline; for example at school and at LAN game cafes.

Though recent reports make it clear that online fan communities are an important element in the market success of a game [7], it is less clear how vendors can go about promoting a community of fans supportive of their games. In this project we sought to discover and document the techniques used by game developers to promote such communities. We interviewed individual game designers and developers at five successful game companies. All interviewees believed that online community was important to a game's success, and that they were able to influence the formation of communities around their games. Through analysis of interview transcripts we identified a number of techniques that developers use or intend to use to promote online communities around games. We categorized them as 'in-game' or 'out-of-game' according to whether they can be implemented within the game software or not. Our results, presented here, represent a snapshot of current developer thinking, and current and planned practice, with regards to online community. It augments previous research concerning the relationship between design features, online community and customer loyalty, with relevance especially to new media, Internet and game-related industries.

2 Online Communities and Videogames

A 'community' can be thought of as a group of people who share informal relationships that are intimate, enduring, intense, and emotional [6, 16, 19]. Communities form around a shared interest, need or expertise [16. 19].

Widespread Internet access has enabled the formation of online communities whose members communicate using facilities such as e-mail, newsgroups, message boards, and chat. An online community is often ad-hoc; its membership fluctuating as people come and go [6]. Members generally have loose ties with many people rather than strong ties with a few and can participate more comfortably without the commitment, pressure, and emotional investment associated with face-to-face contact [18]. However, relationships can be formed online, even deep supportive relationships characterized by frequent, long term, intimate contact [18]. The Internet has supported the formation of many types of communities, including those based on business, research, and leisure [9].

Videogame vendors have taken advantage of the Internet to connect players, both in- and out-of-game, for the purpose of discussion and sharing resources related to games, and sometimes to allow geographically dispersed players to play together [8, 12]. The way in which the Internet is utilised varies between single-player games (no involvement of the Internet to play the game), multi-player games (using a server to host non-persistent sessions), and massively multiplayer games (players connect via the Internet to a persistent virtual world) [8]. Although single-player games do not require players to be connected to the Internet to play the game, players can still benefit from membership in online communities through which hints and tips are shared, strategies discussed, and stories, experiences and content exchanged. Online communities have flourished around Internet-enabled multiplayer games, especially massively multiplayer persistent-world games. A primary motive for playing these games is to be part of an online community.

Online communities provide a number of benefits to their members, including an opportunity to meet like-minded people and discuss common interests. They are abundant in resources such as personal experience, knowledge and opinions, and give members the opportunity to share and gain status in their community [5]. But online communities based around use of a commercial product can also be valuable to the companies that make and sell the product. They can provide new ways to market a product and reinforce customers' relationships with the product.

Online communities typically form spontaneously, but community-building techniques can encourage their formation and growth, and these communities are often more successful if nurtured [2]. To foster online community both the usability and the sociability of the medium supporting it must be considered [16]. Usability concerns ease of use, learning and navigation, efficiency and consistency of the technology. Sociability concerns the policies and mechanics that guide social interaction. Policies define the community's purpose, membership and style of governance [16].

Online communities have often formed around videogames. While many researchers have examined the dynamics of online game communities [4, 11, 12, 13, 14], we seek to understand what game developers can do to promote communities, through features designed into game software, or community management strategies.

3. Method

We used a practitioner-oriented approach comprising face-to-face interviews with game producers, developers and designers at five different Australian companies. The companies were all successful vendors of online videogames, varying in size from 6 to 60 staff, producing single-player, multi-player and massively-multiplayer games in a variety of genres for PC, console, handheld and mobile platforms (see table 1).

Company	Company Profile
A	40 staff; developing arcade, sim and FPS games, on PC, Xbox, and mobile platforms
B	6 staff; developing arcade, racing, platform, RPG; on PC and mobile
C	60 staff; developing RTS, simulation, RPG; on PC
D	25 staff; developing racing, arcade, children's, FPS, strategy; on PC
E	40 staff; developing racing, arcade, sports; console, handheld, mobile; on PC

Table 1. Case study organizations

The interviews lasted one to two hours, and were mostly conducted at the companies' premises. Participants were asked questions including:
~ Are online communities important for the success of a game?
~ Do game development techniques influence the formation of online community?
~ What techniques have you used to promote online community?
~ What techniques are used in industry to promote online community?

Open-ended discussion was also encouraged, to allow unanticipated issues to be discovered. Interviews were transcribed and analyzed using open, axial, and closed

coding, to identify the techniques used and the issues raised by the participants. Interview excerpts relevant to each technique were identified. The list of techniques thus categorized and annotated is presented below.

4. Results

All of the participants in our study believed that online community contributes to the success of games, and that the techniques they use in the design and development of a game can influence the formation of online community associated with the game.

We identified a number of techniques that game developers use to promote community in and around their games. The techniques can be categorized according to a number of factors. The participants distinguished between those techniques that are implemented within the game software and those implemented externally to the game, and we have followed that categorization in presenting the techniques below. Whereas in-game techniques are likely to be considered during game design and implemented by the game designers and programmers, out-of-game techniques may be implemented after the release of the game, and involve staff other than the developers, such as web administration staff and community managers, which may be employed by a separate company. Some of the techniques identified are in widespread use already, while others are planned for future projects.

4.1 In-Game Techniques

Support formation of player organizations. Players often form groups within a particular game. In some games these groups can register as organizations or guilds while in others they remain informal. Membership within an organization is often based on a common interest, goal, play style, or friendship outside the game [10]. However, not all members necessarily know each other outside the game. In some games membership in a player organization is necessary to achieve high levels of play. Guilds and clans allow players to be a member of a visibly defined group, to socialize and relate with other players and to co-operate to achieve in-game success. They introduce social dynamics such as intra- and inter-group politics, hierarchies, rivalry, competition, loyalty, trust, and pride [10].

Guilds provide a structure for coordinating players. They primarily cater to dedicated players, and often require commitment and responsibility from members, especially leaders, to maintain group coherence (Company B, D). They can form naturally if a game provides features that assist players in running the guild. Some basic features that provide this assistance are summarized in Table 2.

Players can be provided with a simple guild-like structure, without the responsibility of having to run it, by providing a system of 'factions', whereby players join the game as members of a race or group of NPCs. "If you are a goblin, your friends are the goblins - [it's] cutting away some of the complexity while at the same time trying to give you the same sort of mechanism" (Company B).

Interdependence can also be encouraged using a class/skill system that requires

players to seek others with skills they do not possess, in order to complete game goals. For example, a warrior may require a healer character to survive a battle, or an engineer to manufacture weapons. Player interdependence can be made "a barrier to entry where you have to interact with a player to get anything done" (Company A).

Reciprocal help between guild members is a powerful community builder, but opens the possibility for exploitation by some players (Company A). It is important to enforce rules in the game world concerning player interactions, such as when players borrow items. "The Internet is anonymous, [and] bonds of trust are going to get strained quite quickly. Hard-coded rules are a way of guaranteeing that when a player invests something they get a return" (Company A).

Feature	Purpose
Guild Tag	Display group affiliations to other guild members and other players.
In-game comm. Channel	Allow members to communicate in game with the entire guild. Used for chat, announcements, and co-ordination.
Communicate with players offline	Allow members to communicate with others who are offline, either through a message that they will receive when they next log on, or through another medium such as e-mail or SMS.
Management functions	Allow certain members to invite or promote other members, form or disband the guild.
Hierarchical structure	Allow players to appoint, nominate, or elect positions of leadership who have greater power over guild management functions.
Guild split and merger	Allow guilds to split or merge as circumstances change or conflicts occur (Company A). These mechanisms should allow players to preserve time, effort and resources invested in the group when a split or merge occurs.
Item borrowing	Allow members to preferentially share their resources with other members. Mechanics to enforce return of items that have been loaned should help promote sharing (Company A).
Guild progression / statistics	Allow members of the guild to keep track of the progression and vital statistics of the guild and members of the guild.

Table 2. Summary of Basic Game Features to Assist Players with Guild Management

Encourage competition between players. Competition encourages players to interact socially, develop rivalries and friendships, and "gets people talking about the game and communicating with other people who are playing" (Company D).

Single-player games can facilitate competition by allowing players to upload their scores to a website (Company D, E). In multiplayer games, player vs. player (PvP) competition is often a key aspect of game play and the most common source of competition between players. Although some players prefer not to participate in PvP, others relish it (Company B). To cater to PvP players without making the game unpleasant for players who do not wish to compete, it is important that PvP action happens "in a particular defined context, so that it is always opt-in, and you know the moment you walk across that boundary that you're fair game" (Company A). Safe areas, where players are unable to engage in PvP, can also be created (Company B).

'Griefing' is the exploitation of game mechanics or imbalances to harass other

players. Rules may be necessary to ensure players behave fairly and do not ruin the game experience for other players. Experienced players can be deterred from killing new players by removing any rewards that they would receive (Company B). Depending on the kind of game, developers may choose to minimize the rules governing PvP because it "adds to the element of fear" in the game; newer players are not protected but have to fight (Company B).

Design effective player matching systems. Simple player matching systems can include ways for players to register their interests or goals (Company D), or indicate that they wish to collaborate, attempt a particular mission, or join a guild. This enables players to search for and contact people who meet their preferred criteria. Player profiles can be built for more fine-detailed matching based on behavior in the game (Company D). An alternative to implementing these in game software is to employ a 3rd party multiplayer client such as GameSpy, which provides player matching and game management services (Company D).

Consider both casual and hardcore play styles. Casual and hardcore players have differing needs and goals and enjoy different aspects of a game. "The mechanics you use to foster community for the different types of groups are quite different" (Company A). "One of the challenges at the moment is coming out with massively multiplayer persistent game worlds that appeal to the more casual player" (Company C). Developers should "find ways for the more casual players and the more dedicated players to have a common purpose in the clan" (Company A). One way is to create inter-dependence between players of different styles. However hardcore and casual players may need distinct goals and rewards.

Consider different types of player-to-player communication. Members of a community need to be able to communicate in-game. Many games provide a typed-text channel that allows within-group chat, and private messaging between individuals. Channels are often based on a game context, limiting group chat for example to players within a particular area of the game world, or to players in a guild. IRC-style functionality can be provided to allow players to create their own channels, invite and kick specific players, password protect their channel, and moderate it. Although it may be desirable to be able to chat with others anywhere in the world, developers may choose not to allow this, as "it breaks some of the realism of the game" (Company B).

Increasing uptake of broadband Internet has made voice-over-IP feasible in games. Voice allows players to communicate more easily and quickly and "amplifies emotion" in games (Company A). However it may also reduce immersion. "The emotional experiences and kind of experience you have while playing a game using voice to communicate with your teammates is very different from text" (Company A). Voice chat may also breach the comfort zone of players, "there is a layer that you lose", "people are left a bit more open", and is generally a "more aggressive and less welcoming environment" than text (Company D). The effectiveness and appropriateness of voice communication depends on the type of game in question [3].

Asynchronous communication methods allow players to leave messages for others who are not in-game at time of communication (Company A). In-game classifieds

allow players to place notices, news, advertisements, and messages for other players (Company A). Providing a variety of communication methods allows "players to communicate at a tempo that suits them better" (Company A).

Report on and applaud player actions. Publicizing player achievements encourages participation in the game and the community. Earning respect within the community increases a player's sense of belonging, gives them an identity, and increases the community's trust in them (cf. [15]). Well-known players can become role models, mentors, and champions for the community.

Systems can automatically generate news based on game events (Company A). Alternatively players can be encouraged to report on each other's actions. This news when collected can be the history, story, and lore of the game. In this way a player's newsworthy actions have a lasting effect on the game (Company A).

Allow players to modify the world in-game Modifications to the game world cause a player's presence to be felt by others, and encourage players to continue playing the game to avoid losing the effort they have invested. Quests can be implemented that on completion produce a change in the game story. Developers can run events and implement storylines that allow players to have an impact on the future of the game world (Company B). Players can be involved by allowing them to suggest and vote on game rules, allowing them to affect not only how the game world looks, but how it works. This alleviates developers' work and increases player involvement.

Allow a player's character to participate in the game while offline. Persistent-world gamers can suffer a "tyranny of absence" (Company A). When they are not logged in, they do not have a presence in the game: their characters cannot trade, interact, or communicate, and are not affected by in-game events. In many current games the player's character simply disappears from the world, only to reappear in exactly the same condition and location when the player next logs in.

Some techniques allow a player's character to participate in the game when the player is not logged in. For example, an NPC can buy and sells items on the player's behalf, or their character may continue to work on menial tasks such as resource gathering, allowing the player to complete more interesting tasks later (Company A).

Pervasive computing techniques can allow players to interact with the game at more times and locations (Company D). "Mobile phones and web interfaces [provide] casual, low-cost, instantaneous access to a game to provide players with ways of interacting with a game when they're not online" (Company A).

Design the world with social spaces in mind. The layout of a game world affects how people interact within it [11]. "There is great value in creating social spaces that are meaningfully laid out to help players [socialize]" (Company A). The sociability of a space depends less on aesthetic design than on "where players go on a recurring basis with the intention of hanging around for a period of time" (Company A), for example places that players must visit frequently to acquire goods or missions. Casual conversations happen where people trade items and seek services (Company B).

Factions can be provided with their own 'home' or 'town' area where they will encounter fellow faction members (Company A, B). Designers should consider travel

routes and where players will encounter each other (Company B). However, casual contact is an inefficient way of finding other players and cannot be solely relied on to initiate community (Company A), so player matching and communication systems should be used as well.

Instancing involves creating a private area of the world for a group of players to enter and complete a task. While it allows content to scale to the volume of players, it restricts player interaction. Therefore it can be "acid for that shared world experience" (Company A). Travel, trading, interaction with players and NPCs, and game progression should be retained in the shared world, and instancing used for specific tasks or missions (Company A). Instanced space should also be "notionally real": if a group enters a certain instanced area of the world, they are the only group in that area at that time (Company A). "We are trying to avoid the sense that 10 teams walk through a magic door simultaneously into their own copy of the world" (Company A).

Encourage players to participate in community events. Players can participate in the online community through staged community events such as in-game meetings with developers, quests, battles, tournaments, or social events (Company A). Developers may also periodically run a mission or quest involved with the storyline, with associated rewards, to give players new goals and introduce competition as players collaborate or compete to complete the task (Company B).

Implement trade systems and encourage a virtual economy. "Virtual economies" have appeared in some persistent-world games, trading goods, services, and currencies that are meaningful within the game [1], and this can contribute to online community, as players seek trading partners. Symbolic value such as graphical design and sentimental value has less impact on the value of an item than its utility; however uniqueness and rarity can play a large role (Company C). In-game trading systems can be implemented to facilitate a virtual economy, although at the present time, out-of-game auction websites such as eBay have also provided an effective trading system (Company A). Secure trading systems can be implemented to prevent players 'scamming' each other (Company B). Players can be provided with unattended trading so that they can place items up for sale while offline.

4.2 Out-of-Game Techniques

Provide an official website and forum. The game vendor or developer's official website and discussion forum are the primary point of contact with players (Company B), and are a basic requirement of every game (Company D). Forums provide a place for players to discuss the game and other topics, debate the current state and future of the game with developers, help each other with technical problems, share game play hints and tips, and collaborate on content creation and other projects (Company C).

Support and encourage fan websites. Like the official website, player-created sites allow players to discuss the game, relate experiences, share information, and share content or utilities. However players perceive an opportunity to more truly express themselves, especially to criticize the game, vendor or developer without fear of

censorship.

Fan websites are more likely to continue to be updated even after the developer has moved on to other projects (Company D). Forums run by the developer can become a magnet for complaints as the players have direct access to the developers (Company A), and developers cannot respond to these discussions without being "seen to beat up on some poor fan" (Company C). There is also an expectation that the developer will respond to complaints, and suggestions within a short period of time, which is often not viable due to the volume of messages (Company C). Forums run by fans still allow developers to gain feedback and information (Company D), and allows them to be selective about when they want to interact with the community (Company C).

Developers may choose to empower popular fan sites to host the majority of community discussion on their own forums. Developers can give fan websites interesting content (Company A) and make themselves available for interviews (Company D). Developers can browse fan websites to identify common suggestions to enhance the game (Company D), notify them of important changes, or reply to discussions.

Ensure effective interaction between developer and players. Developers can go beyond simply providing a website, by employing community managers who encourage community associated with a game and maintain contact between developer and community. One interviewee held the position of online community manager, and another participant employed people in that role. "The biggest thing as a developer in these online communities is the element of trust" (Company C). In order to build trust, players must feel that their issues are being heard and not being ignored, and that the commitments made to them by the developer are being fulfilled. Developers must ensure that they are communicating changes being made in the game and what the plans are for the future to the community (Company C).

Players can be encouraged to form groups within the community based on character choices or collaboration in content creation (Company C). The developer can then communicate with a representative of the group. However, this can create a hierarchy within the community as leaders gain influence with the developers and have the power to choose which issues are raised (Company C). Players who hold an opinion different to the majority of players or do not fall into a definable group may feel their issues are not being addressed.

Attain an early critical mass of players. Multiplayer games have little value to a player if few other people play. "An online game will suck if there are no other online players there" (Company B). It is important to create community early, before the release of a title, and reach a critical mass of players shortly after release (Company A, B).

Building a community early depends on both game development techniques and traditional marketing techniques. "Forums and a decent website that can communicate the basis of the game are crucial" (Company A). Providing fan sites and community with content, and allowing them contact with the developer, fuels interest in a title before release. Building interest through viral marketing can be effective on the Internet (Company A, B). "The single greatest resource you have for a good massively multiplayer game is word of mouth" (Company A). Running an open beta is a technique that can help seed an early community and gain valuable feedback from the

players to enhance the game before release (Company B).

Developers and publishers whose previous titles have already built an online community have a valuable resource that can be used to promote a new game. Advertising to existing players "goes straight to the people most likely to be interested in the game" (Company B). Games based around hobbies or movie licenses can take advantage by marketing to existing online or offline communities (Company B, C). Running an open beta can seed an early community and give valuable feedback (Company B).

Encourage key players to become champions for the community. High-ranking players can be harnessed as advocates who help promote the game and nurture the community. Champions become leaders in the community, organizing other players, championing their issues, and providing feedback. "They know the game better than you do" (Company A). It is important to choose the right players to be community champions: "The people who are the noisiest people, the people who volunteer to be game moderators, they aren't the people you want. The people who volunteer are usually volunteering for the wrong reasons. The reluctant people, who you see and are doing all the right things naturally … those are the ideal community people, because they are fair and honest about how they go about things" (Company A).

Involve players in design and development decisions. Player feedback allows developers to improve a game before and after its release (Company B). Knowing that comments are received by developers encourages players to participate in the game's online community.

Developers may choose to focus on developing the game engine and managing the community, leaving creation of game content to players, through a combination of user feedback, content creation, and modification of the world in-game (Company C).

Encourage and support the creation of player-generated content. Player-created content expands the size and re-playability of a game and allows players to express themselves creatively, and to collaborate and share with others. To encourage players to create and share content, developers can: (Company C, E)

- provide tools that allow users with limited technical knowledge to easily create game content;
- allow content-creators access to the development team, to resolve technical problems via email, the official forums, or chat session;
- manage content creators by organizing groups to work on common projects;
- make it easy for players to package, transmit, and install content;
- be aware that intellectual property disputes can arise with content creators, resulting in ill-will, and therefore ensure that terms are communicated clearly;
- encourage high-quality content by rewarding its creators with extra benefits, such as access to the development team or inclusion in a commercial release.

5. Discussion and Conclusion

Community is clearly important within MMOGs, yet contributes to the success of single player and multi-player server-based games as well. The opportunity to play with and against people rather than artificial intelligence is a major motivation for all forms of online multiplayer gaming [17]. Online player communities also allow developers to maintain contact with existing players and to promote their games to new players through word of mouth and similar activities.

All of the game developers we interviewed believed that having a successful online community contributes to the success of a video game. They also believed that game developers can influence the formation of online communities; that is, the appearance and maintenance of communities is not entirely spontaneous, or dependant on factors beyond the developer's control. They described a number of techniques which can be used to actively promote and sustain game communities. We have discussed these techniques and, in doing so, provided a snapshot of current thought and practice concerning online game communities. Following the participants, we differentiated between in-game and out-of-game techniques.

Our preference for face-to-face interviews restricted our population to Australian game developers. However the participants in this study represented a broad range of companies of different size, age, development platform, and type of games developed. They all compete in the global video game market and all have international game player communities associated with their products. Thus our findings should be generalizable to the global video game industry.

The study presented in this paper was an initial foray into the issues surrounding the promotion of online communities associated with videogames. Given the novelty of this area our research was necessarily exploratory, and we have limited our investigation to capturing and understanding the current practices of game developers. Now that a range of techniques used by developers has been identified and described, a study of how these techniques are operationalized, and an assessment of their effectiveness, is possible.

A fruitful avenue for future work would be to explore the connection between game genre and online community. Many different types of games exist, focused for example on violent battle, problem-solving, role-playing, story-telling, strategy, or socializing. Likewise many types of communities exist: they can be aggressive, welcoming, guarded, collaborative or competitive. Certain types of communities may be suited to certain types of games and not to others. The challenge for game developers is to use techniques that foster the kinds of communities that complement their games. Research examining the connection between game genre and community style can usefully inform these choices as well as improve our understanding of how and why online communities take particular forms and not others.

While there is a growing research interest in online communities in general, there remains broad scope to understand online communities associated with video games, and how these communities can shape and influence the game development process. The research offered in this paper provides a starting point for further analysis of the role of player communities in the video game industry.

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