
CHI PLAYGUE: A Networking Game of Emergent Sociality

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Abstract

Modern professional networking is heavily reliant on social media. In recognition of this trend, we present CHI PLAYGUE, a conference game designed to facilitate interaction among strangers and encourage social networking to create a community. The game facilitates the emergence of social dynamics related to trust, allegiance, betrayal, selective interaction, and long-term strategic cooperation. By providing a platform for large-scale playful interaction, we will create an experience that will foster the development of mutually beneficial personal and professional relationships among players.

Author Keywords

Social networking game; mobile game; QR code; gamification; social games; casual game.

ACM Classification Keywords

H.5.1 Information interfaces and presentation (e.g., HCI): Multimedia information systems; K.8.0 Personal Computing: Games.

Introduction

The increasing ubiquity of mobile and online technologies allows game designers to seamlessly integrate real-life social interactions in digital games. Traditional methods of networking, such as the

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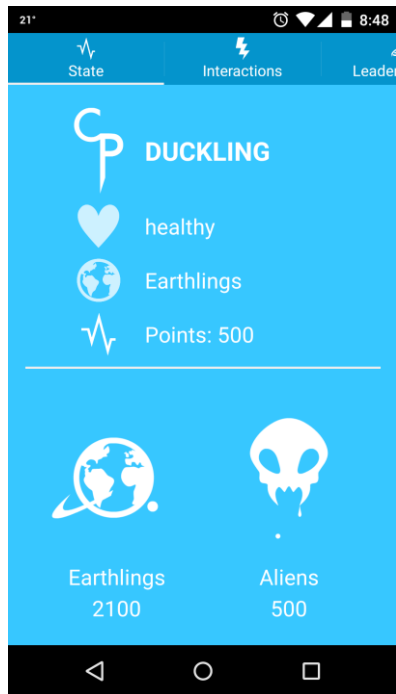


Figure 1. The status screen, where players can see their points, team, infection status, and the total score for both teams. The blue background color is displayed to players with a healthy status.

The game application and video are available at:
<http://play.hcigames.com/playgue>

exchange of business cards or social media accounts, have become a tedious necessity. By injecting this process with playful and gameful elements, we have created a social game that serves as an engaging, exciting alternative to traditional networking paradigms. CHI PLAYGUE is a game designed to facilitate networking for the attendees of CHI PLAY 2015, encouraging them to build personal and professional connections with members of the community. Previous conferences have seen similar games intended to increase social interaction and networking. *Flashbulb* [1] cast players into the role of paparazzi, requiring them to photograph specific attendees as a conversational icebreaker. However, this concept only encourages players to interact with particular targets. In CHI PLAYGUE, interaction with any other attendee will yield in-game progress, providing an incentive to form as many connections as possible. *Snag'em* [2] provided similar motivation, offering points to players for growing their social network. CHI PLAYGUE enhances this motivation by embedding in-game rewards in an exciting narrative context. Cooperative team mechanics further enhance sociality, maximizing the design's social impact.

Gameplay and Interface Design

CHI PLAYGUE is designed to provide an intuitive means of facilitating social interaction for participants. The game's narrative emphasizes that players must form social connections to create a structured data cloud protecting the planet from alien invaders. Aliens were chosen as a universally accessible narrative context, giving players of diverse cultural backgrounds a recognizable antagonist to unite their efforts. The invaders are also carriers of a highly contagious biological agent, which has invisibly contaminated a

small, random subsample of the player population. This creates a dynamic similar to the virus transmission themes of the wildly popular "zombie" genre. As gameplay develops, sick players will be able to infect healthy players, flipping their allegiance to the invading alien forces. Defected players can also be cured, rejoining the Earth defences. As the game progresses, the two "teams" (Earthlings and Aliens) struggle to keep hold of their ranks, forming social connections to increase their score. The ultimate goal is to secure the victory of a player's chosen faction. At the end of the conference event, the team with the strongest network (highest cumulative score) will be declared the winner, determining the fate of the planet within the narrative context of the game.

Players will be invited to download CHI PLAYGUE on their *iOS* or *Android* devices. They will receive a business card with a unique QR code serving as in-game identification. The user interface consists of three parts: the *status screen* (Figure 1), the *history screen* (Figure 2), and the *leaderboards* (Figure 3). Player motivation will stem from the promise of a shared social experience, and the competitive drive to see themselves, or their team, rise to the top of the leaderboards and emerge victorious in the game's narrative. The explicit mechanics of CHI PLAYGUE consist only of interaction between players. During interaction, one player scans the identification of another, earning points for both players and changing player health status based on each player's current condition. The progression of infection is depicted in Table 1. Players can also choose to import contact information from each other within the game, or connect directly through Facebook, if they choose to make personal details available to other players. At any



Figure 2. The history screen, where players can browse a log of their past interactions and begin a new interaction. The purple background color is displayed for sick players.

one time, the cumulative score of a team is determined by the scores of its current members.

CHI PLAYGUE gameplay has the potential to evolve rapidly. The entire population will begin as healthy members of the Earth faction; however, a small portion of players will be randomly selected to be infected. The ‘outbreak’ is handled by the server backend. Initial infection will be invisible, so these players will have a chance to unknowingly spread the infection. After six hours, silently infected players progress to a visibly sick state. Those that have interacted with these players will then find themselves in an uncertain situation. As interactions continue to occur, the infection and the cure both possess the potential to spread rapidly through the population. Effective rates of transmission will largely depend on the collective effort asserted by each faction. A variety of social dynamics can emerge once the players become aware of the presence of a contagious alien virus. When players become infected, they may initially become distressed. For a player whose desire is to aid the Earthlings, it is likely that they would try to regain their healthy status by seeking out a cure. Other players may embrace their role as antagonists, further spreading the infection. Players may adopt many strategies to advance their individual and team rankings. To strengthen each team, the players must participate in as many interactions with their own team as possible. To spread the infection or cure, players will be required to interact with members of the opposing side. However, doing so poses a potential risk of turning oneself to the other team. Thus, tactics of dishonesty or selective disclosure may be employed when pursuing interaction with a member of the opposing faction. As the in-game situation grows direr, trust will become an increasingly important

component of gameplay. The establishment of trust will motivate players to get to know one another, encouraging an exchange of meaningful discourse.

Technological Aspects

Since portability and accessibility were essential qualities in a game targeting a large active population, the mobile platform was a natural choice for development. CHI PLAYGUE is run through server-side operations (written in PHP) and a mobile app, and will track the overall game status on a MySQL database. The mobile application, which will run on any up-to-date *iOS* or *Android* device, is a lightweight layer that retrieves information from the web server and presents it within the app UI. It will also handle the scanning of other players’ QR codes and then send them to the server for interaction processing. The game’s user interface was designed carefully with a minimalistic approach in mind, serving as a non-intrusive tool for player interaction. Technological devices will thus help to foster real-world interactions between the conference attendees.

Innovations

The simplicity of the interaction mechanic is designed to provide opportunities for conference attendees to meet, converse, create new contacts, and have positive, playful social experiences. Players are provided with an open invitation to initiate conversation with other players. Outside relationships will inevitably influence player communication and strategy, as real-world friendships or rivalries may persuade players to favour one side or the other. As players form new relationships through in-game interactions, existing relationships will continue to influence player behaviour, and thus a cyclical relationship is

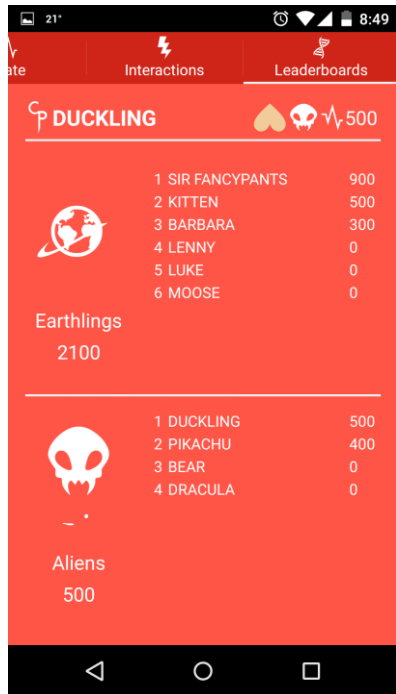


Figure 3. The leaderboards screen, where players can view the best scores of players from each team. The red background color is displayed for turned players.

established between in-game and external sociality. CHI PLAYGUE has been designed to foster a competitive atmosphere that also promotes social interactions. Leaderboards encourage engagement and progression, conferring special gameplay advantages to socially prolific players.

Conclusion

The main goal of CHI PLAYGUE is to liven up the casual social interaction common at conferences. The innovative gameplay aims to provide playful ways to meet and interact with people. As a result, conference attendees will have additional opportunities to become familiar with each other's works and to form new social and professional connections. After the conference has ended, we plan to evaluate game engagement through participation rate, user interaction frequency, and total user connections. We will use CHI PLAYGUE at capturing new users and motivating these metrics to assess the growth and activity of the user base over time, examining the effectiveness of existing users to interact multiple times. Data will be collected using the application. After players consent to the use of their

information, their demographics will be collected to better understand their interaction with other players. The study will attempt to uncover possible relationships between social behaviour, gender, education, cultural background, and other factors.

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Team	Infection Status	Conditions and Effect
 Earthlings	 Immune	Top 10% of Earthling players are granted extreme infection resistance and curing ability. Vulnerable to Superinfected players.
	 Healthy	Normal health status. Low chance of curing infected, low infection resistance.
	 Infected (invisible)	A small portion of players will have this status at game start. Low chance to infect others. Will progress to Infected (sick) in 6 hours if uncured.
 Aliens	 Infected (sick)	Visibly infected. Moderate chance of infecting others. Progresses to Infected (turned) in 6 hours if uncured.
	 Infected (turned)	Visibly infected. High chance of infecting others.
	 Superinfected	Top 10% of Alien players are extremely contagious and cannot be cured through normal interaction. Vulnerable to Immune players.

Table 1: Summary of infection states.