

# Playing with Empathy: Digital Role-Playing Games in Public Meetings

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## ABSTRACT

Digital role-playing games can be an effective tool for augmenting deliberation in a community planning process. We study the implementation of a game called *Participatory Chinatown*—a 3D, multiplayer game designed to be played in the shared physical space of a master planning meeting in Boston’s Chinatown neighborhood. This research examines how role-play can affect the way people understand local issues and engage with their community. It also points to the challenges of extending player empathy from the magic circle of gameplay to the larger context of a community meeting. It suggests that emotional engagement with character and or space does not easily translate into a rational decision-making process. The authors make suggestions for future research that might address this challenge.

## Keywords

Digital games, participatory planning, empathy, role-play, deliberation

## INTRODUCTION

Urban planning has a rich history of promoting stakeholder participation in community decision-making processes. In fact, in the United States, public participation in most community planning decisions is not only encouraged, but federally mandated. Most often, these meetings are held in large community centers, schools, or auditoriums, and are officiated by an urban planner. Professionals contextualize the plan by providing city data, present the lay public with urban plans, such as land-use maps, 3D visualizations, blueprints, or sketches, and then extract feedback from the community.

Although there is much support behind engagement practices, decision-makers remain leery of the untrained public’s ability to make meaningful contributions to urban plans. A 2009 survey of American municipal officials shows that while nearly all respondents valued public engagement, two-thirds thought the processes attracted the same group of residents whose engagement consisted of complaining or championing “favorite solutions,” and a majority of officials thought cities would make more efforts toward public engagement if the public used opportunities

more constructively [1]. Likewise, research from the participants’ perspective shows that residents feel that their contributions to public meetings do not matter [6].

The alarmist discourses of public participation are so prevalent that each has an associated acronym, from NIMBY (“Not in my backyard”) to the more extreme BANANA (“Build absolutely nothing anywhere near anyone”) [7]. This type of engagement often silences other participants and does not lead to the productive dialogue between professionals and residents necessary to make good decisions. In designing for effective participation, then, one must consider the ways in which to refocus pet peeves and complaints while also letting the community feel heard by decision-makers.

Simulation games have long been an approach employed by urban planners to reshape the way the public engages in issues of planning. For example, in the 1960s and 70s, the U.S. Department of Housing and Urban Development launched its Model Cities program that promoted a systems thinking approach to urban change. Non-digital games such as *Trade-Off* (1967) asked participants to develop improvements for a simulated city, and, through a series of trade-offs, learn first-hand about the complicated decision-making that must take place to balance necessary improvements with budget constraints [5]. Interestingly, the tradition of planning games did not proliferate; most of the current participatory methods involve public participation geographic information systems (PPGIS) and urban simulation models that help the lay public visualize and make sense of the increasing amount of urban data available. And yet, games introduce a striking framework through which to approach the problems of planning and community engagement.

Most games take place within what Johann Huizinga calls the “magic circle,” a distinctly separated space where players operate within a unique set of rules and structures [4]. Early planning games demonstrated that imposing a set of game rules on top of the typical rules of public meetings can usefully inform the topic of conversation. The current research looks at how a digital role-playing game can not only inform the topic of conversation, but also reframe how people engage in conversation. Through role-play, conversation shifts away from personal complaints and toward an inclusive discussion about the various

stakeholders in a community. The authors present a game called *Participatory Chinatown* as a case study in this process. Our research suggests that when playing the game, participants empathize with the needs and desires of a character and make decisions accordingly; however, we discovered that this empathy did not convincingly transfer outside of the magic circle to effect decisions made at the meeting immediately after engaging with the game. Despite this, players reported that playing the game broadened their perspective about local issues and even made them feel more connected to their community. These feelings of connection, we contend, can transform how deliberation happens and its usefulness for providing official feedback, thus addressing one of the most common complaints of policy makers about the public participation process.

## CONTEXT

### Augmented Deliberation

The *Participatory Chinatown* game is premised on the theory of *augmented deliberation*, an approach to designing community engagement that emphasizes the simultaneity of face-to-face and virtual situations [3]. For example, one such project, *Hub2*, was designed to structure informed discussions around the development of Library Park in the Allston neighborhood of Boston. In the summer of 2008, residents gathered together in a community room, and each was given a laptop loaded with the multi-user virtual environment (MUVE) *Second Life*. While debating the details of the park face-to-face, participants also walked within a photorealistic 3D model of the space as virtual characters. Participants could propose designs and see them inserted into the virtual space by a professional artist. They could immediately visualize, for example, why a large baseball diamond was an unrealistic suggestion for the one-acre park space. Participants could move and manipulate the objects, or leave comment flags in the space. Additionally, residents were asked to play roles as their virtual characters, through prompts such as “How would a wheelchair user get from the parking lot to the center of the park?” or “Where would a librarian take the children for story time?” [2, 3].

One notable feature of augmented deliberation is its emphasis on “experience”: participants engage in conversation not through the lens of their own perspective, but rather through the shared experience of inhabiting a virtual space [3]. In the implementation of *Participatory Chinatown* we attempted to understand how the shared experience of a space can be constructed around a player’s experience as someone other than him or herself. Trying to understand the space from a less familiar perspective enhances the experience of a familiar space and creates the empathy required for listening and cooperation in a group process. Preliminary evidence suggests that this design of augmented deliberation creates satisfaction from community members with the act of participation and correspondingly creates the context for more refined and thoughtful feedback to planners and policy makers.



Figure 1. Participants playing *Participatory Chinatown*.

### The Game

Since 1990, Chinatown, a 46-acre neighborhood in Boston, has been engaged in several master-planning processes to determine the future growth pattern of the neighborhood. Located in downtown Boston, Chinatown has presented a challenging context for planning: as an ethnically and socio-economically diverse area in the shadow of the rapidly gentrifying financial and theater districts, the neighborhood has had to embrace gentrification while struggling to maintain its unique identity both as a Chinese community and as a welcoming place for new immigrants.

Over the course of the last several decades, the Chinatown community has engaged in countless community meetings meant to engage the residents of the neighborhood in the decision-making process. Every ten years, the process starts again so that the community may assess past changes and plan for the future. The recently completed 2010 master plan took the form of five public meetings between July 2009 and June 2010.<sup>1</sup> The resulting plan was meant to guide conversation for the coming decade. In addition to the traditional mechanism of engaging the community in town-hall style meetings, *Participatory Chinatown* was introduced into the process.

### Designing the Space

*Participatory Chinatown* is a multi-user game designed to be played in real time, in a shared physical space. The game was built using the Sandstone platform by Muzzy Lane software. We chose Sandstone because its built-in features were conducive for educational games and because we were able to use it to build a game capable of running in a web browser.

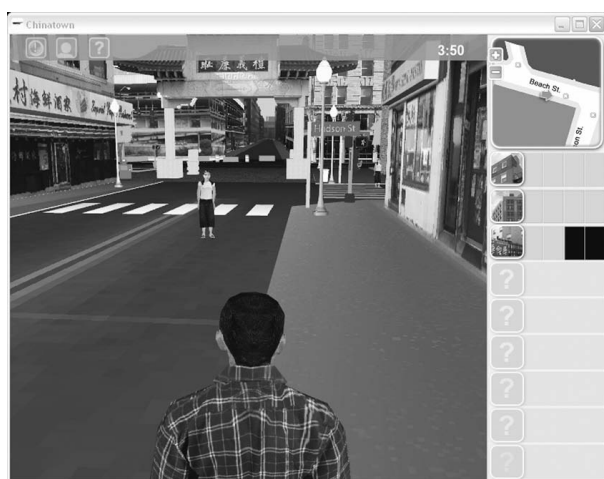
The game launched on the evening of 3 May 2010 in a large community room in Boston’s Chinatown, where 48 people from the community gathered to play. The space was filled with five long rectangular tables, each with the

<sup>1</sup> For more information on the community processes, see <http://www.chinatowngateway.org/mp2010.htm>.

capacity to fit 10 or 15 laptops. A projection screen was placed in the front of the room to which the facilitators on occasion asked players to direct their attention. But the conversation and digital interactions taking place at the individual tables was the focal point of each player's experience. In addition to the physical proximity of players sharing a table, each table represented a multi-player game where players could interact in a shared virtual environment. While all players were playing the same game, there were five distinct instances of the game going on at once with about 10–15 players in each instance. The meeting was facilitated in such a way that the small group interactions at the tables and in the virtual Chinatown were periodically shared with the front of the room. This was meant to produce a dynamic environment that could extend the game dynamics into the physical room. To address Chinatown's diverse language needs, the game was playable in either English or Chinese, and a translator was present throughout the meeting.

## GAMEPLAY

### Stage One: Exploration



**Figure 2.** *Participatory Chinatown exploration interface.*

In the first stage of the game, participants play the role of one of fifteen characters called “virtual residents” that represent various Chinatown stakeholders. These characters range from new immigrants, community elders, and parents to medical students and business professionals. Each character is on a quest within the neighborhood and is seeking a job, a place to live, or a place to socialize.

The game begins by displaying a character's biography and quest, then places players on the streets within a photorealistic, 3D model of Chinatown. Players navigate their virtual avatars from a third-person perspective and are instructed to locate nine Decision Cards in thirty minutes. Each of these cards represents a unique employment, housing, or social space decision that exists within Chinatown. For example, when players find an employment card, they are presented with a local job

description, details on that job's pay grade and health insurance coverage, and the job's required background qualifications and English language skills.

To help locate cards, players can talk to in-game characters or collaborate with co-located players. The nature of augmented deliberation allows these exchanges to occur simultaneously. Some players chose to “meet” friends at specific street corners to initiate in-game card trades, while others simply asked those next to them for directions or advice.

Additionally, players' virtual residents have access to support from in-game non-player characters (NPCs) and local resources. Characters with a long community history, for example, have a large network of friends to call upon for advice or cards, whereas those who were new to the community had only a few friends to assist. Similarly, only characters with large enough incomes can hire a broker to help in an apartment search, and only those with English reading abilities can scan the job ads in the English-language newspaper. And so, while some players locate all nine Decision Cards, many do not.

Throughout this stage, players earn points for finding cards, trading cards with other players, talking to NPCs, and leaving or responding to comments in the environment.

### Stage Two: Decision-making



**Figure 3.** *Decision screen interface. Users can double-click cards for detailed information.*

After the collection phase, players are taken to a screen where they can see all the cards they found. Players are instructed to review their character's biography, spend time looking at their available options, and rank their top three choices. In some cases, players discussed their options with other people at the table, comparing what cards they found and the nuances of the character biographies. Players earned additional points if they ultimately received one of these three choices, and bonus points if they received their top choice.

Once every player in the room finished ranking, the game released the results of their individual searches. Each player received notification of what job, apartment or social space (if any) they received. If they did not receive a card or did not get their first choice, they were told what the reason was. Perhaps the character could not afford the selected apartment, or was unqualified for a job, or, most controversially, perhaps it was given to someone else at the table. In any case, the disclosure of results and final scores produced audible moans and cheers from players, truly energizing the room and motivating the desire for conversation. The moderators recognized the high scorers at each table before a group discussion.

#### **Stage Three: Discussion (Part I)**

At this point, players turned toward the front of the room to face the moderator. Players were wearing two nametags: one with their real name and one with their character's name. The moderator began by asking who received their first choice. The moderator then called on those people (using their character's name) and asked how they felt about it. The moderator also asked who did not receive any of their choices. Similarly, using their character's name, the moderator asked how they felt about not receiving anything. These questions prompted a discussion about competition, trade-offs, lack of resources, transportation, and open spaces.

#### **Stage Four: Community Priorities**

After about 15 minutes of conversation, players were instructed to take off their character's nametag. During the game's next part, they were told they could be themselves. The game displays a screen populated with nine cards representing community values such as identity, walkability, affordable housing, and green space—values determined by the community during its 2000 master planning process. Players were asked to determine which of these values best reflected their ideal future of Chinatown. After players select their top three cards, the game determines a planning scenario—either commercial focus, residential focus, or mixed-use focus—that best aligns with the ranked values. If a player's three choices were employment, shopping and dining options, and open space, for instance, they were told their values were best reflected in the commercial emphasis.

#### **Stage Five: Visualizing Futures**

But as decisions about planning are always group oriented, in addition to being made aware of one's personal scenario preferences, the game tabulated the combined preferences of each table and displayed the group's preference. Players were instructed that regardless of their personal choices, they would now be entering into the scenario model preferred by the table. The scenarios in question related to a large parcel of land slated for development to the south of Chinatown, butting up against Boston's South End neighborhood.

Back in the game environment, avatars were turned off, shifting the point of view from third person to first person.

Moderators asked participants to explore this possible future for Chinatown, while also locating the nine question stations located throughout the environment and leaving responses. These stations prompted players to answer questions such as "What should the Chinatown / South End transition be like?" and "What is the number one thing that makes Chinatown feel unique?" In addition to answering these questions, players could add their own comments within the environment.

#### **Stage Six: Discussion (Part II)**

In this final discussion, participants were asked to talk about the future of Chinatown. In small, moderated discussions at the table, participants were asked to comment on how the modeled scenario they entered as a group matched with their personal preferences. They were also asked to discuss how their personal preferences corresponded with their perception of their virtual resident's preferences. After a twenty-minute discussion, the moderators at each table reported the table's general sentiments to the larger group. Once all tables had a chance to report, the meeting was adjourned.

### **METHODS**

A mix of methods was employed to study participants' experience with this type of community meeting. A paper-based survey was administered to collect demographic information and ask about the meeting experience and levels of satisfaction. Participants answered using a 5-point Likert scale with strongly disagree as 1, neither agree nor disagree as 3, and strongly agree as 5. In addition to the survey, eight one-on-one interviews were conducted immediately following the meeting.

Of the 48 questions on the survey, 5 address the issue of empathy and role-play. Additionally, all eight interviewees were asked to extrapolate on their experience playing their character. These questions were meant to answer two primary questions: Did the experience of playing a character affect the player's overall experience of the planning process? And did the experience of playing a character affect how players made decisions during the meeting? While the questions on the survey and in the interviews were broad, the current research focuses on empathy and role-play. As such, we present only the responses relevant to this topic.

### **RESULTS**

Of the 48 players who attended the meeting, 38 responded to the survey (78% response rate). Broadly, the authors discovered a shift in the diversity of participants in comparison to a traditional planning meeting. The mean age of participants at the *Participatory Chinatown* meeting was 30, and 90% of surveyed participants (n = 34) stated they had little or no experience in community planning processes. While no good demographic data is available for community meeting attendance nationally (or locally in Chinatown), it is a commonly held perception that these

Question	Avg.	Std. dev.
I thought about my character (resident) when I picked my first choice housing, employment, or social space card	3.61	1.23
My character's (resident's) needs were on my mind when I picked my first choice housing, employment, or social space card	3.57	1.18
I thought about my character (resident) when I was ranking the value cards to show my top three priorities for Chinatown	3.44	1.18
I considered the conversation about all the characters' needs during the second part of the game, even though I was playing as myself	3.13	1.10
Right now, I could tell you a lot about my character's (resident's) life and struggles	3.65	0.68
<i>1 = strongly disagree, 3 = neither agree nor disagree, 5 = strongly agree; n=38.</i>		

**Table 1. Survey results from *Participatory Chinatown* meeting, May 2010.**

meetings tend to be populated by senior citizens, and that the same people tend to participate regardless of the issue at hand [1].

Survey questions relating to empathy are presented in Table 1. Participants agreed that they “thought about” their characters (3.61) and had their character’s needs “on their mind” (3.57) when making decisions about employment, housing, or social space in Stage Two of the game. Participants also agreed that they would be able to tell someone “a lot” about their virtual character’s life and struggles (3.61). However, there was no agreement among participants that the virtual characters or the discussion about the characters had an effect when they made choices out of character. Participants were neutral when responding to whether they thought about the virtual residents when deciding on their personal values for Chinatown (3.44) or whether they thought about the characters’ needs during the second half of the game, Stages Four–Six, in which they played as themselves (3.13).

The impact of the role-play on players’ game experience was also articulated within the participant interviews. In general, players responded that playing a character within a familiar space was a powerful element of the game experience. One player said: “For people unfamiliar with Chinatown, it was good to get familiar with the neighborhood in this way before engaging with the neighborhood.” Players reported that it was not just a disembodied character, but a character contextualized within the familiar space of the neighborhood. “The game for me was all the characters,” said one player. “I feel like I have a personal relationship with all of them because I’ve lived here for so long.” As such, getting into the character was facilitated by spatial immersion—both virtual and physical—as the computer game was immediately followed by a face-to-face discussion (in character) about what happened during the game. Many of the people interviewed commented on the effectiveness of this approach. In reference to the conversation about the game, one player

said: “I feel like it started it. But it has to go further. It’s a great start and a wonderful vehicle.”

One young player, when asked to reflect upon playing the elderly Mei Soohoo in the game, said, “I consider Chinatown a community I’m familiar with, but I’ve never thought of it from the perspective of an elder. It’s nothing I’ve really considered. I thought that was really interesting. Just for [Mei] to find seniors to associate with and have a community with so she wouldn’t have to live alone.”

## DISCUSSION

The community’s knowledge that this public meeting would be based around the *Participatory Chinatown* game attracted different people to the meeting; it also created different expectations of what was to happen at the meeting. It is unknown to what extent the novelty of a “game meeting” played into *Participatory Chinatown*’s high attendance or energetic participation; the high attendance at the meeting actually required some participants to have to share a single laptop, and thus a single character. Rather than diminishing the experience, this seemed to promote greater cooperation and deliberation as the two players had to come to a consensus about the decisions to make for their shared character.

The game cultivated the player connection to character in two ways: 1) through the explication of biographical detail in narrative form, and 2) through the experience of moving an avatar with a specific biography through a familiar environment. This study of *Participatory Chinatown* demonstrates that an immersive, role-playing experience can give participants in a community meeting a strong feeling of connection to the neighborhood and a deep understanding of the issues in play. The research demonstrated that players were willing to participate in the game because it quickly became clear to them how the exercise was enhancing their sense of connection to the local context. The game did not feel peripheral to their civic participation, but rather part of it. Walking the

neighborhood in someone else's shoes was a recognizable and enjoyable tactic to immerse players in a context of decision-making that is often not clear in the traditional town hall meeting. The characters introduced the players to details about the neighborhood, including its physical boundaries and demographic specificity. But more importantly, the characters assured that each player would be introduced to a diversity of perspectives about the neighborhood's "objective" issues.

When beginning this research, we had hoped to find a positive correlation between the specifics of a player's character introduced in the role-playing part of the game and the personal decisions made by the player in the parts of the game without characters. We found no such correlation. Within the meeting's facilitated discussions, most players were unwilling to acknowledge that their characters exhibited any influence on their personal decisions. Of course this makes good sense. It was far too ambitious to assume that a role-playing experience would manifest in different decisions by individuals. This would require an immediate translation of an emotional experience into a rational conclusion. While playing a character clearly made an impression on players, one that manifested in an emotional connection to a neighborhood and its community, it did not translate to an immediate, rational reframing of the issues within the meeting itself.

## CONCLUSION

Using role-play in a planning meeting can be an effective tool for community engagement. When role-play takes the form of an immersive, multi-user digital game where all players are physically proximate, it is specifically suited to engage players in a local context.

*Participatory Chinatown* demonstrates that role-play can engage players in local issues and motivate them to engage with each other. However, in this initial study, we were unable to demonstrate the immediate impact of role-play on personal decision-making. In fact, some players greeted this very line of questioning with suspicion. In the second part of the game, after users selected their personal priorities for the future of Chinatown, a moderator asked one of the participants how his character would feel about his decisions. The participant responded, "I understand what you're trying to do," but he didn't want to address how his character would feel about his personal selections. His unwillingness to "play along" demonstrates the complexity of stretching a game beyond the "magic circle."

Further research is necessary to establish the possibilities of effectively transgressing the boundaries of the magic circle in this sort of game. We first approached the question by measuring self-articulated changes in individual decisions. In other words, we wanted to have players articulate how the game experience altered their decisions about the future of their neighborhood. We learned that role-play, within the magic circle, is quite effective in altering decisions that get made only within the magic circle. Outside, different rules

apply and a different context for decision-making predominates. Both in and outside of game structures, people make decisions within an established framework. In a game, one might make a decision because they want to earn points or they want to advance their character along a prescribed path. Outside of a game, people might make a decision because of their moral values or because they feel pressured by others in a room. The point is, decisions are never a manifestation of pure rational thinking: they are a product of a frame – a situation or internal and external rule structures. Accordingly, future research should focus on how game-based role-play can *reframe* issues for decision-makers. The reframing of issues is about changes in the context of the decision-making process and not the actual decision itself. Reframing is a gradual process, not an immediate reflection of an experience. For example, six months after playing a game, do players articulate the local issues in a way that incorporates an expansive context and a diversity of stakeholders? Do players represent a different framework, perhaps influenced by the game's rules and structure, from which they make decisions?

Playing a character, situated in time and space, can be an incredibly persuasive exercise for people struggling with how to grapple with the very serious issues of urban and community planning. It can also be good fun. In studying how games influence community engagement, we also need to consider the affordances of fun in a process that is notorious for lacking it. In future research, we should consider not just how games can change the context of decision-making, but also how games can change the tone of decision-making. In this regard, fun is no laughing matter.

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