

# **Fiasco: Location-based, physical gameplay with a digital interface**

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**Abstract.** FIASCO is a location-based mixed-reality game that is played both on a website and on the streets. Developed using methods inspired by Situationist urban theory, FIASCO was designed to promote new uses for public space. As pervasive games moves into the public sphere, the authors propose a review of their effects on social life and urban spaces.

## **1 Introduction**

Games and play are related, but non-identical activities. Not all playful activities are games, but play is a component of most games. Zimmerman offers a useful definition to help understand pervasive *gaming*: “A *game* is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome” [1].

A subset of pervasive computing, *pervasive* gaming includes more than games on handheld devices. It also comprises games using objects embedded with microprocessors [2], games playing with wireless networks and fields [3], and games incorporating data from the physical world into virtual interfaces. Like business or educational systems, games regulate human behavior to produce quantifiable outcomes. Unlike other systems, the games measure success in *fun* [4].

Tensions between the artificiality of game worlds and the integration of pervasive technologies in the physical world should be critically addressed as a component of successful game design. When gaming is constrained by its physical context attending to the players’ daily lives produces more compelling games.

## 2 Models for understanding pervasive gaming

### 2.1 Understanding pervasive games through social aspects

As a widespread pastime, desktop computer games have transformed the lives of millions of people in industrialized countries. A wave of pervasive gaming, moving beyond games on handheld devices, would further move players away from the desktop and towards greater integration with the physical world. In light of gaming's popularity and the potential for future applications, we depart from technical specifications or taxonomies of game structure (role-playing, gambling, etc) to discuss pervasive games in terms of their effects on human behaviors.

**Temporality** The relationship of a game system to the passing of time affects the integration of pervasive gaming into work and leisure. *Event-driven games*, such as The Go Game [5], occur irregularly or only once. For dedicated players, event-driven games require a correspondingly more intense time commitment. *Integrated games* are "always on." Initiated by the player, they require little advance notice or commitment. FIASCO is one such game: players complete game moves at their convenience. *Ritual games* occur at predictable intervals. As with an annual mobile photograph scavenger hunt from Hiptop Nation [6], players who miss one can always join the next, so there is less incentive to disrupt work or reschedule leisure activities for the game.

**Situatedness** The relationship of a game to its location limits the mobility of players in the physical world as they play. *Stationary games*, such as Media Lab Europe's teleconnected ball game *Breakout for Two*[7], are based at one or more location(s). Though stationary game players must remain at a specific place, the outcome of the game is not materially affected by any attributes of location. Played with small portable devices, such as the Nintendo Corporation's Gameboy, *mobile games* promise play regardless of location. In *Location-based games*, however, place becomes an part of play. As in *Can You See Me Now?*[8], successful players use spatial and geographic attributes to their advantage. Both stationary and location-based games are tied to specific places, while mobile games promise "anywhere" experience. The authors' current project, FIASCO, is a location-based game. Players gain status by performing game moves on carefully chosen real-world street corners.

## 2.2 Pervasive gaming and urban spaces

Pervasive games cannot occur in a vacuum; we must attend to the spaces that enable them. Spurred by the growing popularity of mobile phone games, pervasive gaming is moving into urban public spaces. But gaming in cities is hardly new. Models for integrating pervasive gaming practices into cities exist already. These models are by no means the only ones, but they suggest diverse paths for game designers.

**The arcade** The game arcade is a physical space constructed around personal enjoyment, communal performance, and commercial profit. Catcalls and cheers from friends and rivals provide additional amusement and engagement for the players and the audience. Providing many different kinds of games and accommodating combinations of individuals and groups, arcades create a permanent social space for play and the social interactions around it. Digital/physical games (such as the Asian hit *Dance Dance Revolution* [8]) thrive on the audience participation and competition engendered by permanent physical gaming zones.

**The pickup game** In American cities and towns, amateurs gather regularly for seemingly unplanned sports matches. In our observation of a weekly New York softball game, we saw no signs advertising the matches. Players had to know how and when to join, then win enough acceptance to return as 'regulars.' The conventions of the pickup game enable cooperative play with very little social formality and without commitment to an organized league. The pickup games require no dedicated space — just a public field that is empty at the same time each week. It exists through the continued support of players. Without them, there is only an empty field.

**The street game** Street games require only public city surfaces plus some inexpensive props. Hopscotch and marbles use asphalt; handball requires a wide, flat wall. Unlike the arcade and the pickup game, street games need no dedicated space. They coexist with other street activities, and leave no permanent traces behind.

## 3 Research activities: Fiasco

We are developing FIASCO, a location-based game, at Intel Corporation's People and Practices Research group (PaPR) as part of PaPR's current interest in public construction of identity, creation of trust within communities, and location-based applications.

### 3.1 What is FIASCO?

FIASCO is a game of physical action with virtual consequences. Using New York City as a game board and networked telecommunications systems as dice, players

conquer and control turf — as represented on virtual map — by performing and documenting game moves (?stunts') on the streets.

Though FIASCO began as a project in game design at New York University's Interactive Telecommunications Program (ITP), it has since been transformed into a research probe at PaPR. While we still hope to enable enjoyable play, we also hope to advance a research agenda. Debating the rules, navigating the map, and creating alliances can shed light on technology use and construction of self in social interactions that increasingly mesh virtual and physical channels. As a research game, FIASCO exists in dialogue with other traditional forms of social inquiry. A game can be a form of "user testing" which improves the game and gives us insight into its cultural place.

We designed FIASCO to encourage "ordinary" New Yorkers to imagine and publicly perform responses to an increasingly commercialized and surveilled public sphere. In doing so, we hoped to transform citizens' and players' attitude towards public space. By linking game success to exploration of territory, we also encourage players to question their own relationship to "turf," and to move beyond habitual haunts into new territories.

Even seemingly arbitrary rules stem from a cultural assumption that the purpose of games is "fun." The word "fun" encompasses a complicated set of temporally and geographically specific behaviors and assumptions. If a game system is not fun, "users" will cease to play along. To ensure a user base, we were less concerned with deconstructing fun than with making sure our players had a good time.

One player, a 30-year-old New Yorker, defined urban fun as "faster, stupider, and more retarded." Not so much anti-intellectual as *a-rational*, her vision of fun rejects the adult norms of patience, politeness, and thoughtfulness. In a world governed by industry and intellect, fun is a *waste of time*. And from that comes its power.

### 3.2 The Situationist critique

Beginning in the 1950s, a group of young artists and intellectuals in France decided that utopian ideologies of urban planning concealed a metropolis of regimentation, empty consumption, and ultimately boredom. They called themselves the Situationists. As one 1967 slogan put it, "The guarantee that we will not die of starvation has been purchased with the guarantee that we will die of boredom." [9] In wandering the streets according to game-like rules or momentary whims, they sought to revitalize urban experience by constructing new "situations." Situationist artistic interventions employed randomness, absurdity, and satire. Their collaged papers, writings, experiments and dramas were an analogue of their willingness to tear the city grid apart to build a better one. The most prominent of these experiments was the *dérive*, or "drift," where individuals abandon habitual practices in favor of experiments dictated by the urban terrain and encounters found therein. [10]

### 3.3 Design process

Inspired by Situationist methods, our design process traced a virtual drive through the Internet, art practice, and gaming communities. Using the Google search engine, we assembled large collections of images and phrases associated with urban games and the built environment. To juxtapose unexpected concepts, we borrowed a strategy from the painter Mark Tansey, who begins his artistic process by spinning a set of interlocking wooden wheels engraved with lists of words, then responds to the resulting combinations [11]. We also adopted the approach of artist and architect Vito Acconci, whose “Following Project” documents a conceptual street game [12]. After choosing a stranger at random from a crowd, Acconci trailed the target until s/he entered a privately-owned space. Both Acconci and Tansey use the logic of games (“spin the wheel” or “follow a stranger”) to generate unexpected, creatively energizing outcomes.

### 3.4 How to play

Based on techniques for improvisational theater games [13], game moves in FIASCO (“stunts”) contain three elements: an object, an action, and a theme. Objects are characteristically New York items, such as coffee cups or street signs; actions are traditional street game, and themes are chosen from local situations, such as “happy hour” or “vice.” Themes act as wild cards, altering the readings of the other components.

Location is an implicit fourth element. Each stunt is associated with the street corner in New York where the stunt took place and marked on the virtual map with the owner’s tag. Situated within specific notions of place, stunts must be judged *in context*. Behavior that is amusing in a park might be less so on a residential street.

Uploading photographs of a stunt to the website begins the rating process. The community of players uses the website to rate the amusement value of the stunt concept and accompanying photographs. When players battle for turf, the highest rated stunt takes possession of the street corner — until another challenger comes along.

## 4 Expectations for the workshop

We hope for spirited discussion of differing research agendas in pervasive gaming. Given the breadth of available technologies and game types, there is a multitude of design practices and priorities. Documenting and articulating a selected set more fully could help others benefit from previous lessons.

The appeal of games rests in their status as a temporary alternative to systems of ordinary behavior. The more pervasive the game, though, the more likely it is to “blend into reality” [14]. The challenge for designers and researchers is to create pervasive games that enhance and revitalize our daily lives, not intrude upon them.

We hope that the designers treat pervasive games more than just hermetically sealed fantasy worlds, but also as components of full, rich lives spent constantly moving between work and leisure, family and friends, activity and rest.

## 5 About the authors

Chang and Goodman presented Fiasco as a joint Master's thesis in May 2003. Chang has since joined the People and Practices group of Intel Research, an interdisciplinary team of social scientists, designers, and engineers committed to ethnographic research as a means for identifying unarticulated user needs. A design researcher, Chang is currently engaged in exploratory studies of issues of identity and trust in relation to social and technological infrastructures. She looks to tease out concerns and opportunities resulting from ubiquitous computing environments. Goodman is an independent researcher and consultant on public social interactions and ubiquitous computing. She recently assisted on mobile ubiquitous computing research at Intel Research Berkeley, looking at playful social applications for small, low-power wireless devices.

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