Extremes of Social Visualization in Art

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Abstract

Many interactive artworks function as miniature social environments. Frequently these environments take social visualization to an extreme, strongly privileging graphics over text and removing the underpinnings of a traditional community. In this paper I discuss my experience with one such interactive art project, *Apartment*, and touch on several other similar works. This genre may of interest to the CHI community as a source of ideas and as a living laboratory.

Keywords

Social Visualization, Interactive Art

ACM Classification Keywords

H.5.2; H.5.3

Introduction

In many interactive artworks, content is profoundly abstract and identities are negated. Yet viewers still find ways to manipulate these artworks to create social interaction. Such artworks can serve the same purpose for HCI researchers that bacteria living in deep-sea volcanic vents serve for biologists: Investigating extreme interactive environments deepens our understanding of what conditions are truly necessary for social interaction to exist.

The *Apartment* Series

In 2001 through 2003 Marek Walczak and I created a series of interactive artworks, *Apartment* [6], that appeared first on the web and then in various museums. The inspiration for *Apartment* came from the "memory palace" mnemonic technique (a piece of Roman-era information technology).

figure 1. The apartment construction view

The first version of *Apartment* was a web site that contained a highly abstract reimagining of the memory palace concept, exploring the relationship of thoughts to architectural space. Upon entering the site, a viewer sees a screen that is blank except for a blinking cursor. The cursor is a cue to start typing; when the viewer does so, their text flies apart into a sequence of animated words which move around on a backdrop of

an evolving floorplan for an apartment. The rooms of the apartment and their arrangement reflect the text typed by the viewer.

figure 2: The city view, arranged by "intimacy," so that apartments with more bedroom words are towards the center. The mouse is over an apartment titled *marry me jerk*.

After typing several sentences, a viewer will see a swirling sea of words (figure 1). Because the words have flown apart from their natural order, it is typically difficult for other viewers to reconstruct the original text from this swirl.

Viewers can save apartments, but no authorship is recorded. Saved apartments can be seen in a "city view" (figure 2). This view shows images of each of the apartments, arranged using polar coordinates to show

time of creation (angle) and percentage of words that correspond to a chosen type of room (radius).

figure 3. An installation version of *Apartment*.

Installation versions
The *Apartment* project has existed in many different forms since its launch, including installations at several museums (e.g., the Whitney Museum of American Art in 2001) and arts festivals (e.g., Ars Electronica, 2002, Malmo 2003, Madrid ARCO 2006). Installation versions generally feature a large-screen projections or special furniture for viewing, such as the table in figure 3.

Social Interaction
Viewers created thousands of apartments. Many represented personal stories, rumination and poetry. Others pushed the boundaries of the software, consisting of huge numbers of words or a single word repeated many times.

But alongside these individualistic efforts, an oblique, style of social interaction arose between viewers— despite the lack of identity and the illegibility of the text in the apartments. Some viewers left messages for each other. We learned of several cases where one viewer would create an apartment with a specific intended recipient, and then send email to that person with a message like, "I made an apartment for you: see 'Joy joy joy.'" In a more graffiti-like vein, we also saw "vandalism"— apartments that were highly obscene or otherwise offensive.

The visualization in the city view, which allowed viewers to see the tone of many apartments at once, seemed to create a collective sense of fashion and peer pressure. Several times the artists witnessed miniature trends develop when a particularly clever apartment became heavily imitated.

In the installation versions of the piece, a different type of social interaction arose: when a group came to the installation, they would often beginning talking and laughing as they typed, discussing what they would say and why the installation was reacting as it did. This is a strong contrast to how groups typically react to a painting. The ability of the social visualization to serve as a conversational artifact is reminiscent of the catalyzing effect of the "Telemurals" project [2] as well as the reactions to the "NameVoyager" data visualization [7].

As with the NameVoyager, one can track a correspondence between the uses of Apartment

(creating meaningful apartments, testing boundaries, sending messages, and vandalism) and the four types of game players described by Bartle [1]: achievers, explorers, socializers, and killers.

Future Work

A follow-on artwork to the *Apartment* series will be launched in summer 2006. The tentative title, *Gothamberg*, reflects the fact that it will focus on city made of viewer-contributed stories. As with *Apartment*, social visualization will play a central role. Unlike *Apartment*, there will be a strong focus on narrativity and emotion, along with explicit links between the contributed stories.

figure 5. A proposed text-based visualization from *Gothamberg*

figure 4. A proposed mood-based visualization from *Gothamberg*

Related Artworks

Apartment is not alone as an art project that spawned social interaction from minimal circumstances. Out of the many other pieces with similar properties, I wish to highlight two in particular.

Deep Walls

A recent elegant installation by Scott Snibbe, *Deep Walls* [4], illustrates identity-less asynchronous interaction. Viewers walk in front of a camera, which records the motion of their silhouette. That animated silhouette is then displayed in miniature, along with the 15 other most recent recorded silhouettes, in a 4x4 grid on a large screen—essentially a visualization of recent interactions with the piece. Because the animations are rendered as black-and-white shadows, it is usually impossible to tell the identity of the people shown. Yet

people respond in interesting ways to previous silhouettes, with little genres of movement arising: if one person does a particular flowing arm motion, then others are likely to imitate that later.

p-soup
In 2000 Mark Napier created *p-soup* [3], an online artwork in which multiple people can manipulate an abstract graphical environment. A viewer can set a variety of animations in motion, while seeing animations created by other viewers who are using the piece at the same time. There is no sense of identity; in fact when three people are online, it is hard for one viewer to distinguish between the actions of the other two. Textual communication between viewers is impossible. P-soup is therefore extremely minimal, something like Chat Circles [5] minus text and history.

Despite these austere conditions, *p-soup* can feel extremely social, developing complex rhythms of turn-taking and use of "personal space" on screen. Viewers have described feeling an intense emotional engagement; one viewer reported she could not stop using the piece until an unknown partner left, since she was afraid to abandon the invisible stranger.

Conclusion
The projects discussed in this paper all led to social interaction despite lacking features traditionally associated with online communities. One lesson is that artists rush in where usability professionals fear to tread—and by doing so can illuminate unlikely paths to social interaction.

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