



# Meaning Makers: User Generated Ambient Presence

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## ABSTRACT

*Presence is an important part of our day-to-day lives. Often we will have a sense of who is around us and what they are doing by the sounds of doors closing, cupboards banging, footsteps on floors, voices vaguely heard through walls, etc. In digital spaces, such as GUI desktops, presence enhances our sense of connection with geographical separate friends and colleagues. In this article we report on Ambient Jewelry, which is a project exploring the intersection of individual and user generated customization with ambient presence displays. With this research we are seeking techniques that enable people to invent, discover and find new forms of ambient presence visualisations. [Article copies are available for purchase from InfoSci-on-Demand.com]*

*Keywords: Ambient Jewelry; Ambient Presence; Social Networks; Virtual Flowers*

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## INTRODUCTION

Ambient Jewelry is a work-in-progress project that explores the intersection of individual and user generated customization with ambient presence. Awareness of presence is an important part of our day to day lives. Often we have a sense of who is around us and what they are doing by the sounds of doors closing, cupboards banging, footsteps on floors, voices vaguely

heard through walls, etc. As of yet presence representations, such as in Instant Messaging clients or on social networks such as Facebook, rarely enable us to control how our presence is represented. We cannot design colourful Jewels rather than virtual flowers (ambient presence avatars) that spin on our friend's desktops or webspace to show how fast we're typing. Nor can we create the relationships between arbitrarily

designed presence avatars and how transforms of the avatars encode actions.

The designers of the presence systems specify the representation of presence. Within the project we took an open design approach. That is we acknowledge that users may be better suited to inventing presence representations to suit their needs, social status and social connectedness. There are two different roles for users to design and personalise Ambient Jewelry presence:

1. **The Creator of an Ambient Jewel:** They design an Ambient Jewel to fit their likes, e.g. they create the initial graphical design of a Jewel from a family photograph (static content). Then they make the Jewel dynamic by setting up how the graphical look of the Jewel changes based on their actions, e.g. type fast and Jewel blinks fast. Once a Creator has made a new Jewel they may share it with their friends. When a Jewel is shared with friends it is sent to the friend's remote desktop GUIs. When a Jewel is shown on a desktop it continues changing based on the Creators remote actions.
2. **The User of Ambient Jewels:** The User is the person who receives the Jewel and who sees it visually changing on their desktop. The design process still continues with the User because the User is able to use their friends' Jewels to decorate their desktop. A User with more Jewels has more options to arrange them into aesthetically and artistically appealing patterns, shapes and clusters.

By introducing sharing of the ambient displays we are indirectly forcing Users to reflect on Jewel meanings. Will groups of friends converge and create the same

style of Jewels, almost forming a shared ambient display graphical language that is specific to their group or community? Or will certain graphical representations and Jewel transforms emerge across all Users, because they make "sense" in an ambient display? Will users tend to create disturbing effects, e.g. blinking and spinning jewels? Or will a social consensus emerge with the implicit agreement not to use disturbing effects?

In this article we outline our framework for and approach to enabling Users to become designers of their ambient presence displays. We are especially interested in understanding how the Users of a Jewel perceive the Jewel Creators actions.

## AMBIENT JEWELRY

Presence and Ambient Displays have been explored in many innovative research projects (Dey & de Guzman, 2006; Streit, Röcker, Prante, Stenzel & van Alphen, 2003). For example InfoCanvas is an implementation of a user customizable ambient display where users can design the contents of the ambient display as part of information art (Stasko, Miller, Pousman, Plau & Ullah, 2004). Another similar display is Scope (van Dantzych, Robbins, Horvitz & Czerwinski, 2002), which consists of small iconic representations based on notifications.

There are numerous different approaches to digital presence awareness. Prior, Arnott & Dickinson (2008) tell us about an interface they created based on metaphors of the real world to help older adults understand the concept of Instant Messaging. While Kranz, Holleis & Schmidt (2006) created a novel physical device to share

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