

# The WebAwareness Experience

## Enhancing a Website with People

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### 1 INTRODUCTION

Most people perceive the World Wide Web primarily as a huge information container, where nodes of information are connected through hyperlinks. To browse the web is like walking in an endless library where books, journals, brochures, video-clips and scraps of papers are spread on the shelves and tables with little or no systematic structure to guide the visitor

This solitary consumption of information is in sharp contrast to a second and much more social side of the web-coin. There are numerous resources on the web solely intended for human interaction. In discussion forums and chat rooms we can meet with people from all over the world and participate in anything, ranging from idle conversation on trivial issues to serious debate on matters of life, love and death.. Here, the metaphor of a café, a conference or an academia is more appropriate. To regard a complex and rapidly evolving phenomenon such as the web as a deserted library with cafés as islands of social activity is of course to oversimplify a great deal. The growing element of trade and commerce on the web is only one example that would call for additional metaphors, such as shops or bazaars (Klang & Olsson, 1999). Still, the user-experience of most online shopping fits in the category where people are absent. It is more like shopping from a mail-order catalogue, than running around in the hallways of a crowded mall. Braa et.al. (2000) foresee a more revolutionary change that could come as a result of the "digital collision" of traditional information, communication and broadcasting media, now occurring on the web. The perceived absence of people is false, or at least it could be. The web-site we are occupied with could be a deserted ghost town or

crowded like the streets of a big city. We just rarely have a chance to know. Making people visible on the web could transform a walk in a deserted to a visit to a museum or an exhibition. Here, the awareness of other people could be prosperous in the sense that they could be used as resources for a variety of purposes.

Awareness is a multifaceted phenomenon, containing aspects such as being able to see other people, interpret their actions and eventually act upon them. Dourish (1997) states that "The primary role of awareness information is to make one's activity visible to others." The notion of awareness has been studied and discussed from various perspectives in different scientific fields. Social Navigation is concerned with how this could be used in order to enhance the quality of navigating information spaces. Dieberger and Höök (1999) discusses two forms of social navigation – direct (the user reacts on active recommendations ) and indirect (the user reacts on observations of other peoples behaviour). In CSCW literature the focus is set on how awareness among co-workers could contribute to the practice of distributed work, (see for example Ackerman & Starr, 1995), and research on virtual communities stresses awareness as an important foundation for computer mediated communication (Bradner et. al. 1999).

### 2 AWAREWARE

Indirect support for the previous argumentation concerning the desirability of enhancing the social dimension of the web has recently been provided through an emergent trend of new software, all addressing the aspect of making people aware of one another on the web. In that sense, applications, such as ICQSurf™, Odigo™, Third Voice™, and Gooey™ could be argued to

constitute a cluster with intersecting and complementing features. Nilsson et. al. (2000) proposes a conceptual classification framework (table 1) for what they label – Awareware.

	Present (synchronous)	Past (asynchronous)
Verbal	Chat	Annotations
Visual	Co-presence	Footprints

**Table 1: Framework for classification of Awareware**

The verbal/synchronous mode is labelled the *chat*. This is where visitors sharing an information can communicate in real time with each other. Verbal traces made by people in the past can be referred to as *annotations*. Awareness of *co-presence* means having visualised information of the whereabouts of all simultaneous users. Finally, the historic traces of previous users are referred to as *footprints*. The Awareware that was included in Nilsson study were all client-based software, requiring to be installed and started by the user. Then they function as “magic goggles” revealing everyone else currently sharing the same website, wearing the same type of goggles. This is of course a major constraint, making it very difficult reaching critical mass for active on-line discourse (Bradner et. al., 1999). Furthermore, these awareware are more or less bound to a limited number of platforms. A fundamentally contrasting approach to support awareness would be to hand out magic goggles to everyone at the entry point of the website, thereby ensuring the visibility of all people on the site. What we propose is a server-based awareware, that distributes a platform independent client to the visitor.

### 3 WEBAWARENESS

Web Awareness is a prototype awareware, which functionality is based on the four modes of awareness-support in the awareware framework (Nilsson et. al., 2000). The system is programmed in java, thus making it platform independent. In order to enhance a website with Web Awareness, the webmaster needs to select one of the web pages as a host for the entry point to the application, as well as setting the scope for which pages to include. The entry point is in the form of a logotype image that when clicked opens a new browser window on top of the original site. This window hosts the login form where users has the option to identify themselves, if doing so s/he can take active part of the verbal modes, (e.g. chat and annotate.), otherwise the user can only observe the written communication on the site. The

scope of the chat is user controlled in the sense that s/he has the choice of whether to visualise only the visitors to the same web page or to the entire site. At all times the user can see which nodes of the enhanced site that has the most visitors, this information is available both in terms of present (co-presence) and past users (footprints). Co-presence is also supported by a counter that keeps track of the number of visitors on the current page.

### 4 FURTHER WORK

The web Awareness application is currently implemented and studied in a series of different web contexts. The first case was a virtual art gallery - a public website where visitors could talk to each other while viewing the artwork. Just as in a “physical” gallery, the interaction was mostly brief and conversational, but sometimes engaged.

In the next step the Web Awareness system will be implemented on a website for distance Education, a setting with a predefined audience, where personal as well as virtual relations exists in advance.

Studying the functionality and use of Awareware will hopefully lead to a richer understanding of how to best support interaction in the information resources of the web. However the rate of expansion of the web, makes it safe to assume that even with optimal support for awareness there will not be enough people to populate all sites, but it will be possible to tell the ghost town from the metropolis.

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