

Networked information services in context sensitive environments

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ABSTRACT

The Sushi project was originally conceived and developed in the (Interval Research Group funded) Computer Related Design Research Studio at the Royal College of Art, London. Sushi was developed as a new way of sharing information between people in small groups and networks within the Royal College of Art. By drawing some parallels between the way we manage and experience cities in the real world - through urban planning and our experience of media - we can begin to understand what it takes to design, build and run information services and people networks that develop human and electronic knowledge assets.

Keywords

Networked information services, context sensitive environments, augmented spaces, real places, virtual spaces, multi-channel services, communities, knowledge management, intranets, urban environments, p2p networking.

INTRODUCTION - IMAGINED CITIES

The city has become a recurrent metaphor in the conceptualisation of the Internet, from the world wide web to MUD's and MOO's. The form and structure of the Internet is like a stretching, organic city sprawl, creating cities within cities which are enormous, clumsy and extremely difficult to conceptualise, map or navigate.

Imagine a place you could go where accessing information was more like moving about a city, where browsing was more like wandering down a street. A place of fleeting imagery, fragments of conversations and chance encounters.

Virtual environments have historically tended to focus on the realm of the visual real world. Literal representations of rooms, buildings and streets rather than focusing on the sensory and experiential qualities of a particular environment or situation. Virtual environments with concrete, finite three-dimensional qualities alone cheat virtual and real space of its full potential, missing the opportunity of mixed interactions between people, objects and environments.

Historically, architecture was the social and cultural mediator of society's stories. Buildings – cathedrals for example – were representations of power and knowledge; they were communication spaces in their own right. Now, postmodern theory tells us that the medium is the message (McLuhan), the world is simulacra (Baudrillard), leading to a fascination with the image – or at least the imagined image. There are many more competing communication formats: sometimes buildings, sometimes magazines, billboards, sounds, fashions and shops – often temporary and ephemeral, sometimes tangible, sometimes intangible. Communication becomes a dynamic interplay of real space and virtual space, on the streets, within our communication networks and in our heads.

The sushi 'belt' was developed as a reaction to these ideas. The sushi belt, which originated in Japan carries food around a restaurant on a mini travelator (reminiscent of airport transport), allowing customers to select food at their leisure. In our fast-food city culture this gimmick has been adopted worldwide. The sushi belt is used as a metaphor in this interactive project that explores our modern interpretations of information.

NETWORKED BASED EXPERIENCES

Network infrastructures such as the Internet and wireless communications are radically changing many of our basic living patterns. We are moving toward an increasingly fluid way of communicating, working, playing, traveling and being, with greater mobility and personal freedom. The orientation shifts from specific places to situations, locations and time, and connecting people as technology changes how and why we move around. Now we call

a person, not a geographical location or place, which means conversations – in fact interactions of any kind – can potentially take place anywhere. In this context, our simplified notions of location and place become relevant in new and perhaps unusual ways.

The Internet has grown to become far more than an electronic bulletin board for people in the computer

industry. It is a place to do research, to amuse oneself, to gather information and, increasingly, do business, develop relationships and maintain connections. Networks have not only transformed the business models of organisations but are re-shaping existing social landscapes, creating new social shapes affecting the forms and communication structures within these environments - inside and out.

INSPIRATION

The Sushi Project, explores the very nature of the computing medium itself – how a system can be represented, how the system appears to people using it, ways people can interact with the system and what qualities it suggests.

Sushi was developed as a new way of sharing information between people in small groups and networks within the Royal College of Art. Based on the idea of a notice or bulletin board, the system extended its original use by exploring the possibilities of networked screens to represent relationships between public and private, and real and virtual, drawing on ideas of both montage and the narrative of the city. Sushi represents a small-scale community, and all the associated interactions that take place in such an interpersonal space.

EARLY DEVELOPMENT/VISUAL LANGUAGE

Sushi's look and feel evolved from a desire to create a visual-spatial environment that offered an alternative to prevailing user interface standards and conventions prevalent in Macintosh/Windows operating systems and applications. Sushi is a visual-spatial environment for creating, manipulating and viewing information. Media and information are represented as themselves (non-iconic). Layered images and interface elements express the content and tasks that need to be completed. Sushi fuses the language and syntax of tools and digital time-based media embedding features and functionality within the narrative space of the application.

USER ORIENTATED RESEARCH

Based on the metaphor of a Sushi bar conveyor belt, tiny images, text or animated icons are pushed along a virtual conveyor belt connecting everyone working at their machine at the same time. The icons are little tasters of what lays behind them, for example, links to internet-based events, notices and websites.

The application includes a simple authoring environment in which people can easily create their own notices and icons, and link in their own pages.

The result is a textured environment, more akin to moving through a city, where browsing is like wandering down a street; a place of fleeting imagery, fragments of conversations, and chance encounters.

A TAXONOMY OF COMMUNICATIONS: THE DIFFERENT SOCIAL LEVELS OF GRANULARITY IN WHICH PEOPLE LIVE AND COMMUNICATE WITH ONE ANOTHER

The sushi research team looked at the different scales in which people live and communicate with one another; the city, the club, the dinner party and one to one conversations. Searching for ways to characterise communication forms in different situations and media, our aim was to create the framework and infrastructure for a city. However this became too ambitious, the focus shifted towards our primary target audience in the Royal College of Art, which fitted the social scale of a club. The application, called 'The Active Media Transit System', focused on dinner party conversations; the belt became the output of a fictional kitchen; the information exchange was the conversation patterns situated around a dinner party.

VISUAL LANGUAGE

We spent time talking to both students and tutors, improving our understanding of the culture and the environment, the activities people were involved in, and their difficulties and desires. Notice boards, adverts for services and specific events were integrated and located within the Royal College of Art. These notices were scattered in specific locations such as in lifts, corridors, the coffee bar, the walls of the canteen, places you either passed through or spent transitory moments in, perhaps drinking a coffee, eating a meal or talking to colleagues and friends. Notices in these in-between spaces took on an ambient presence. The random juxtaposition of different notices not only created multi-layered information spaces, but also offered representations of short-term history and collective memory.

PROTOTYPING

The following questions were asked:

What could the experience be like?

What are people's mental models for this kind of thing?

Interfaces and navigation systems generally offer perceived control and access to everything and anything at any given moment. These environments have a particular richness, but in some instances do not afford chance encounters in the form we experience in our day-to-day lives through chance collisions with other people, places and situations.

The first release of the Active Media Transit System needed to establish a limited set of features and functions.

Essentially, we wanted to see how people inhabited the system before applying specific features. Features could be context and location sensitive and so be built into the application at a later stage. Because of this simplicity, the opportunity exists for potential subversion, accidents, and perhaps different uses of the environment in ways we never imagined.

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AUTHORS

The Sushi project was conceived by Martin Locker, Ian Morris and Giles Rolleston. Software design and development by Ian Morris and Giles Rolleston.

Giles Rolleston is the creator of the multi-award winning CD-ROM projects 'Urban Feedback' and 'Urban Feedback London Tokyo, Tokyo Nomad'. 'Urban Feedback' was the first CD-ROM published on Neville Brody's 'Laboratory' label. Urban Feedback creates media and services that exploit the interactive territory of the city. Giles' expertise is in customer experience strategy, interaction design, information architecture and creating pleasurable, useful and usable interactive systems. He brings ten years experience in the conceptual design, development and implementation of software tools and digital media experiences.

Giles currently works for SBI and Company (previously Scient) as an Experience/information Architect and is part of the customer experience group, responsible for the direction of information architecture and interaction design in Scient projects. Before joining SBI, Giles worked for Meta Design London and Icon MediaLab where he worked on projects which encompassed translating brands into interactive environments and services. He was also responsible for establishing Meta Design London's thought leadership program.

From 1995-1999 Giles worked in the Computer Related Design Research Studio at the Royal College of Art. Funded by Interval, a research think-tank based in Silicon Valley, and employed as an Interval Research Fellow and Lecturer on the Computer Related Design MA course, he was responsible for establishing the Active Media Group.

Giles was originally a graduate and postgraduate from the Central St. Martins College of Art and Design, London; he studied Graphic Design and Interactive Media.

He has exhibited and presented across Europe, the United States and Japan.