

ShiftSpace: Thesis Statement by Mushon Zer-Aviv

ShiftSpace is an Open Source layer above any website.

While the Internet's design is widely understood to be open and distributed, control over how users interact on-line has given us largely centralized and closed systems. The web is undergoing a transformation whose promise is user empowerment—but who controls the terms of this new read/write web? The web has followed the physical transition of the city's social center from the (public) town square to the (private) mall. ShiftSpace attempts to subvert this trend by providing a new public space on the web.

This is a collaborative thesis work, perused in collaboration with my partner Dan Phiffer.

Border Conflict: A Personal Statement

To grow up in Israel means to be always aware of borders. There were national borders, which changed often, and defined where you could and where you could not go. Within Israel there were borders between communities—religious and secular, North African and Eastern European, Israeli Jews and Israeli Arabs, rich and poor. I have had to be aware from birth of those visible and invisible lines that separate us one from the other. Everyone had to learn this: to be safe, you must be aware of borders and stay within them. To go beyond, to not be mindful of them, is dangerous. The message was clear, yet it seemed to me like there had to be a better way to live.

That may explain why I was so drawn to the Internet. It appeared to me to be a place without borders. A world where I could explore freely, meet people who were not in my specific geographic or cultural communities, and express myself without being labeled in advance. It seemed to put into practice one of the greatest lessons of the Jewish diaspora... how to stay together culturally while separated physically. In some ways, I believe, the Jewish Diaspora was the first example of a post-national society. This model failed with both the Holocaust and the founding of Israel. I expected the web to provide a more successful model.

In Israel I was a graphic designer and focused on web design. I grew optimistic about the possibility of a world in which there was wider understanding, dialog, cultural curiosity and openness. It may have been naive, but I was inspired and worked to make public this vision of a kind of utopia of information and understanding through the web.

Perhaps because of my lifelong conditioning, the more I work on the web, the more aware I become of the borders—often invisible, often subtle—that exist online. And the more I am drawn to cross them. Again it seems to me like there has got to be a better way.

I try to learn from the city and from urbanism and political theory. I am influenced by the Situationist International, like me these thinkers were constantly aware of invisible borders, but this awareness was not meant to keep the borders, but to expose, cross and break them. The concept of *Dérive* as described by Guy Debord is a critical method to decipher the social and political constraints of urban space. It is the principal method for exploration of our own 'psychogeography' - how our urban environment affects our self and social perception. Today we live not only in geographical space, but also in information spaces that define our perception of the world and our private and public identity.

I am interested in extending the idea of the *dérive* to explore the geography of information. Critical exploration can reveal the true nature of our information spaces and allow us to question their design. With my work I attempt to encourage people to challenge and renegotiate the borders of information and to challenge the way they shape our world.

Methodology

The Problem: Privatization Vs. Online Public Space

The web is referred to as a free revolutionary space capable of bridging geographical, political and cultural differences. It's not. This celebration of the 'new democratic global village' ignores the main concept at the heart of things - privatization. Website owners have become the sole rulers of their own domain, maintaining fully privatized and centralized control. Cyberspace now has more borders than physical space.

In the past four decades we have changed our experience of public space. With the rise of consumer culture we have traded the town square for the shopping mall. We are loosing our autonomous zones for private-controlled commercial zones.

The web today is more a shopping mall than a town square like your local mall, it gives the misleading appearance of a public space. The blogging revolution have re-introduced the ideal of an online public-sphere, or a 'Blogsphere', based on an independent discourse between private sites. But even sites that are based on user generated content and hold the most pluralistic agendas, ultimately maintain a private ownership control structure, which is hard-coded into the DNS protocol.

ShiftSpace is an attempt to break through and create the a truly public space on the web.

ShiftSpace is a challenging software development project, but even more than that, it is an interesting community building challenge. Hence, we have divided the project into 2 main sections: software development and community development.

The ShiftSpace Plugin

The ShiftSpace plugin is available for free download at ShiftSpace.org. It is an extension for the Firefox browser. When a webpage is requested by the browser, ShiftSpace manipulates the code of the page to allow special applications to work within it. These applications for ShiftSpace are called *Spaces* and the bits of content generated through them are called *Shifts*.

Spaces

Some of the spaces are utilitarian, such as *Notes* which allows ShiftSpace user to leave annotations on websites that resemble post-it notes, or *Highlights*, which allows the user to highlight text on the page. Another family of Spaces are of a more interventionist and experimental nature. Such is *ImageSwap* allowing users to grab any image on the web and swap it in place of any other image, or *SourceShift* – allowing the users to edit the shifted page's HTML code and share it with other users.

The ShiftSpace Console

When a user browses to a modified ('Shifted') webpage, the small ShiftSpace icon (§) pops up in the bottom left side of the screen to notify the user that there are Shifts on the page. The user can then press the keys <Shift>+<Space> to launch the ShiftSpace console.

The console allows the user to browse through the Shifts (modifications) or to use a Space (tool) to create her own Shifts. After creating a Shift the user can choose whether to share it, to keep it private or to delete it. The public Shifts are aggregated on ShiftSpace.org which also provides RSS feeds

filtered by user or url.

Trails

Users are invited to map these shifts into Trails. Each shift can be trailed to one or more other shift. Unlike hyperlinks, trails are not unidirectional, and do not force the hierarchy between the linking page and the linked page. These trails can be used for collaborative research, curating netart exhibitions or as a platform to facilitate a context-based public debate. For example, a Note on an on-line article can be trailed to a Highlight on a blog post and then trailed to a SourceShift on another page, together creating a trail through information. [requires a scenario like the one here:

http://shiftspace.org/press/ShiftSpace_poster_block-mag.pdf]

Groups

[To Be Expanded]

Rules

[To Be Expanded]

Attributes

[To Be Expanded]

Social Network and Reputation System

A social networking system built into the console will allow the user to define ShiftSpace friends and choose to see Shifts in four ways: her own authored shifts, her friends Shifts, her friends' friends Shifts, and those of the rest of the user community. The system allows users to rate Shifts, giving them a 'Shift-Up' (good) or 'Shift-Down' (bad), or if necessary flagging them as an abuse. [requires a reference to the moderation system design proposal: <http://shiftspace.org/wiki/doku.php?id=moderation>].

The goals set for the plug-in towards the thesis presentation are the following:

- A tested version of Trails
- The Highlights space
- Full support for Unicode (& international script)
- New scalable interface for the creation of Shifts
- Technological roadmap for decentralization
- General bug-fixing on the core platform

The ShiftSpace Community

ShiftSpace's success depends on the development of a strong and thriving Open Source community around the platform. We will target these three groups:

1. **Users of the platform** who participate by browsing Shifts, rating them, creating new Shifts through different Spaces trailing them and extending their social networks within the system.
2. **Space Developers** may be creators of net art works, activist applications, site-specific communication tools or even companies basing their business on the ShiftSpace plug-in. We will encourage all of these Space developers to publish their code as open source and share it with other developers and help make this environment as accessible as possible to members with various programming skills.
3. **Inner Circle** are devoted developers who will write code for the core ShiftSpace platform. They will develop the console, the social network, the reputation system and the database which we are hoping to base on a peer2peer architecture – keeping the data safe from technological hazards and beyond the reach of lawyers. (i.e. Napster's case vs. Bittorrent model)

We intend to expand this community through several channels.

Presentations / Installation Parties

ShiftSpace was first introduced to the public in the Ars Electronica Festival in September 2006. We launched ShiftSpace v0.03, the first public version of the platform with an 'installation party' at the last day of the festival. We threw another installation party at Conflux, the festival for contemporary Psychogeography in Brooklyn, NY and will throw these parties with every new version of ShiftSpace. We call these parties 'A Public Space Installation', and invite people to install a public space in their browsers.

Commission Program

We are working on a collaboration with Turbulence.org to commission artists to create artworks using the ShiftSpace platform. These submissions might be anything from a specific shift, through a trail constellation to a full-fledged space. We are waiting to launch a stable version of Trails for that, and expect to publish the call around mid-April.

Developers

We are reaching out to developers and developer communities that might be interested in collaboration. We try to reach these developers both online and offline. Until today we have managed to reach 3 volunteers who have joined us after seeing us speak about ShiftSpace in various

opportunities. We hope to keep growing in the coming months and to start see code submitted by the new developers be a part of the next versions of ShiftSpace.

Workshops

We are currently building a set of workshops in which we will work with artists, activist, students, and developers to create their own content through ShiftSpace. These workshops will change based on the audience's different technical levels, their cultural interests and the context of the workshop (one time thing in a festival, a 3 meeting series in a school, a semester long course...).

The goals set in this section for the deadline of the thesis presentation is for us to be able to present:

- Several case studies for different use patterns of the system by our users
- Spotlight on code segments written by members of our the open-source community
- A call for submissions for a commission program with Turbulence.org
- Outline for a workshop
- (maybe) The results for one workshop

Theoretical and Technological Contexts

Context I: On Public Space, Ideology and Parasiticism

Notes to be further expanded:

Information-Urbanism and online Public Space:

- Hannah Arendt – Public Freedom
- Jurgen Habermas – Public Sphere
- Henri Lefebvre – Anti-Urban Society
- Guy Debord, Situationists International - Derive
- Hakim Bey – Temporary Autonomous Zone, The Net and the Web
- Edward T. Hall - Proxemics

Interface as Ideology:

- Louis Althusser - ISA
- Slavoj Zizek – Design as ISA, Unknown Knowns

Developing a Parasitic Protocols:

- Stuart Hall – Encoding/Decoding: Dominant-Hegemonic code / Negotiated Code / Oppositional Code
- Galloway - Protocol
- Serres – Le Parasite
- Broeckman – Parasitic netart

Context II: The Meta-Web

Initial text to be expanded:

ShiftSpace is not the first meta-web application. Third Voice was an early attempt to allow site-specific annotations, but it was not open source and allowed only one form of modification. The company went out of business in 2001. The myth around Third Voice speaks about the market not being ready for the revolutionary meta-web idea that Third Voice represented, with webmasters organizing in initiatives such as “Say No! to Third Voice’ and lawsuits piling at the young company's door. But the truth is that the company did not manage to build a firm business model around the product and with practically endless website, there were not enough Third Voice notes out there to make a case for the effectiveness of the system.

The problems encountered by Third Voice are relevant to many other social Meta Web applications. And today, even though a lot of the initial conditions for social meta-web applications changed, we have not yet seen a significant success in the field. Today, there are several different annotation applications that try to add to the Third Voice model through more sophisticated aggregation systems, interfacing with social-bookmarking sites, highlighting features, online proxing of annotations (to allow them to be served not only through the browser plug-in and so on). Yet they all have a catch which they attempt to build their business model on and which usually pose a conflict of interests with their users. Either these applications compromise their users' privacy, or they mine the users' data to bug them with ads, or they require tiring registration processes, or they limit them to a one or two tools. Non of these apps have come up with a convincing sustainable business model, and in that case, if like Third Voice, the company goes out of business, it takes with it all the data created by it's users.

Greasemonkey is a plug-in environment that allows hackers to inject code into websites. As a meta-web platform it allows different applications to work based on the site browsed by the user or through automatic pattern matching on the content. Greasemonkey is an open-source project that have spawned a thriving community of developers, using various automatic Javascript-based meta-web applications. Greasemonkey does not have a social network of users or an aggregation interface. To

create meta-web content the user has to write Javascript and it is currently impossible for the user to know by browsing a site, what *Userscripts* are available for it. The elegant architecture, the open-source model and the versatility it allows are the source of GM's success.

ShiftSpace uses Greasemonkey's architecture as the underlying platform and its open source approach to add flexibility. It adds to that by creating interfaces that will make it easy to create and share content through the system, and APIs to encourage developers to extend on these interfaces. ShiftSpace will offer a lot of the functionalities currently offered by proprietary meta-web applications and would add to them. It does not attempt to mine or monetize the user's data, neither does it limit the user to a certain tool. The user's privacy is important to us, and thus we hope to incorporate a Peer-to-Peer system to protect the information from technological or jurisdictional hazards. The driving force behind the creation of ShiftSpace is a just concern for the future of the web and a great belief in the role of the open-source movement in it. It hopes to become an important chapter in the history of the meta-web and set a successful standard that would finally realize its promise.

Further extension of this segment:

What is the Metaweb?

The Myth around the Failure of Third Voice

The Blogosphere, Web 2.0 and Social Bookmarking – Pointing At

Mashup Culture

A Critical Reading of the Research for a Semantic Web, Digital Panoptism

Hyperlinks are not the same as V.Bush's Trails concept