

Interface as a Conflict of Ideologies

by Mushon Zer-Aviv (April 2007)

Preface

In the past 50 years User-Interface has become a major field of cultural production, since the innovations of Douglas Engelbart in the sixties (mouse/keyboard/video-screen) through the personal computer revolution in the eighties to the rise of the World Wide Web in the nineties and the trends for social web applications since the turn of the century. Producers of hardware and software systems have been attempting to develop interfaces that will direct the users to produce the interaction desired by the system they represent. The discussion of interface have been constantly revolving around the axis of experience and usability, presented sometimes in contradiction and sometimes as complimentary assets of 'good interface design'. As a tool the success of interface is defined by its ability to generate the desired interaction on behalf of the user and have the user understand and act by the set of rules that the system defined.

It is important to mention, interfaces have existed for a long time before the personal or the institutional (military) computer. Actually, they have been around longer than culture or man-made tools have. Yet the rapid construction and consumption of interfaces (especially in the field of software and specifically in the context of communication interfaces and the web) have made this an important and influential part of contemporary culture.

Interface is defined as a point of interconnection between two independent systems. This definition sheds a different light on the way we have learned to know the interfaces around us.

If the sides interacting through the interface are to be two independent systems, then one would expect interface itself to maintain that balance and not favor one system over the other.

In this essay I would address the question of control and agency within interface and attempt to find where is interface situated within the map of power. I would also use several examples and attempt to propose tactical and strategic approaches to act within this conflict.

Encoded/Decoded

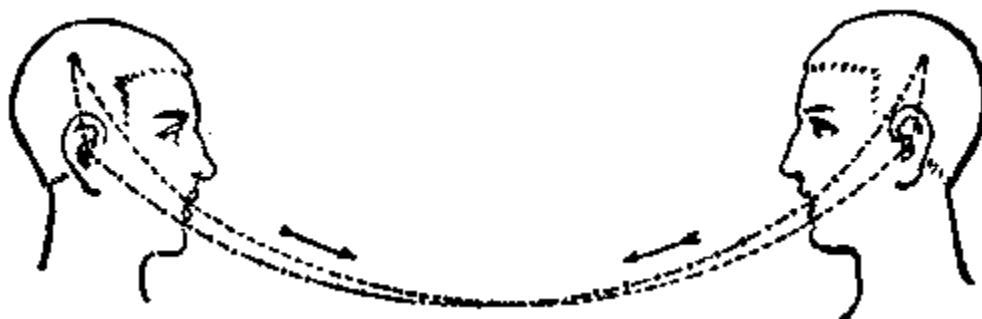
One of the first fundamental interface we all use is language. Semiotics is occupied with questions of interface down to the level of the building bricks of meaning. In that level interface is both what differentiate symbols as independent units and is 'the glue' that connects them into new units.

Linguist Tania Reinhart explored the low-level interface between syntax and systems of sound. Her work researched the counter influences of context and meaning and the role of the linguistic interfaces on multiple levels of language. Her work is very influential on the margins of human languages and computer languages. Reinhart's work investigated both the interface between the low level symbols and the very high level of media theory where information (and disinformation) lays just as much on the interface between context and meaning.

In the intersection of Computer Science and linguistics researches try to analyze processes both in human and in computer systems. In the highest level we can find the computer-human-interface – a point in which the two differentiate both as independent systems and as

a new constructed unit. This requires us to question both the interface and the nature of the new unit it constructs.

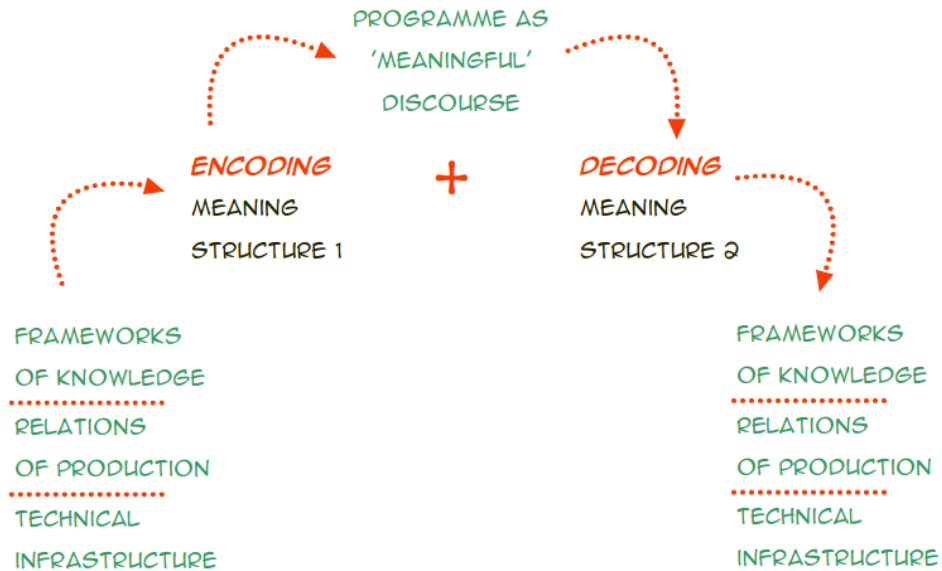
The oral communication circuit as defined by Ferdinand De Saussure involved a symmetrical feedback loop: message expressed through speech from the mouth of the sender and received through the listening ears of the receiver. Then again, the feedback occurs in which the previous receiver constructs a new message, express it through speech to be received by the listening receiver (the previous sender). This communication circuit depends on equal sharing and use of the interface, in this case – spoken language.



British Sociologist and cultural theorist Stuart Hall rejected this model of what he called 'textual determinism' and suggested that the code used by the sender to encode a concept into a message is not necessarily the same code used by the receiver to decode the message into a concept. In an essay from 1980 titled 'Encoding/Decoding' he suggests that rather than being a passive action of receiving, the recipient of the message is actively involved in the communication circuit and decodes the message into a concept.

The use of code in the communication circuit will be key for examining questions of interface.

We now know that language is a communication interface for sending and receiving messages, but it involves other cognitive interfaces which are the codes responsible for Encoding and Decoding the messages and concepts. While language should be shared for the Saussureian circuit to maintain itself, the codes used for encoding and decoding can be and often are different.



Mass media (Hall had television in mind when an earlier version of this paper was released in 1973, but this theory is fully applicable to new mass media as well including the web) offers not only the message but the recommended code to decode it with. This code offers a certain identity to identify with and to use in order to derive a certain action. Here is an example:

Sender's concept: Buy Nike products.

Sender's encoding: Nike stands for the free spirit of sport, its product is sports rather than fashion and the athletics abilities it stands for are at the core of the American dream.

The program / (meaningful) discourse: *A clean and aesthetic TV ad showing Michael Jordan in an empty basketball court shooting hoops and slam-dunks in slow motion with only the sound of his shoes squeaking on the floor. Nike's logo appears at the last 3 seconds of the ad.*

Up to this moment the sender has complete control over the message, the sender hopes for the receivers not only to receive the message but to actually identify with the proposed identity and want to adopt it as a part of their own. The identification model offered by the sender would also lead to decoding it with the original code that was used to encode it and getting the desired message across. Using the same code of the encoder to decode the message is what Hall calls the **Dominant Code**. In this case the receiver can be expected to continue the process in this fashion:

Receiver's decoding: *Nike stands for everything I believe in - the free spirit of sport, creativity, the love of the game, physical athletic ability and the American dream.*

Receiver's (produced) message: *Nike is a brand for me, I should buy their products.*

According to Hall another option for decoding proposed is the **Negotiated Code**. It means the receivers understand the message and the encoding process, they do not dismiss it all together but do not automatically buy it either. In this case the circuit might continue like this:

Receiver's decoding: *Nike have a fancy ad, it sure is aesthetic. I guess they have a new line of shoes as well. I like sports but that has nothing to do with my taste in fashion.*

Receiver's (produced) message: *At the end of the day, I wouldn't mind buying their shoes, Nike are as good as the next brand, when I do need to make this decision I will choose shoes based on my own reasons, not because I like the Chicago Bulls.*

The third code would be the **Oppositional Code**. The receiver understands the content of the message and the code encoded into it, but chooses to dismiss that code all together and use another code to decode the message in opposition to the initial intent of the sender:

Receiver's decoding: *Nike attempt to buy me with Michael Jordan, his Slam-Dunk and the American dream, while all I see are sweatshops and labor exploitation of the worst kind.*

Receiver's (produced) message: *I will never buy any Nike product, I might even consider switching to the side of the Lakers.*

These three interpretations of the same encoded message reveal the complexity of the communication circuit. Saussure spoke of oral communication which creates a symmetrical circuit of interaction, Hall spoke of mass media and specifically television, a unidirectional medium. The communication interface is crucial in the process of encoding and decoding – it

is the structure that formalizes the message and defines the nature of the communicated relationship. Yet in both speech and television interface is invisible to us, it has very explicit rules and we are aware of its abilities and disabilities. With speech when in dialog mode, we expect to be given the chance to speak back and use the same interface for discussion as our correspondent use, we are expecting a symmetrical one-to-one relationship. With Television we are expecting a one-to-many asymmetrical relationship – we see what is broadcasted by the Television channel, which delivers the audio-visual message without expecting any response from us. We can always switch to another channel, still that would not directly change the message of the broadcaster, rather switch the broadcaster itself.

The Web's Communication Diagram

Language is a common interface, television is not. We do not respond to television since it is not an interface available to us. The internet is a many-to-many platform which allow through formalized interfaces different types of communication. We have the one-to-one communication diagram of e-mail, the many-to-many diagram of IRCs, but what would be the case of the web?

The web is celebrated for dramatically lowering the threshold for the authorship of media and communication interfaces. The relatively low prices of hosting, the simplicity and flexibility of HTML and the interconnectivity model of the hyperlink have made the web a revolutionary tool for gaining ownership of media.

The web contains interfaces that allow for one-to-one, many-to-many or one-to-many

unidirectional or bidirectional interactions. This multiplicity complicates the web's communication diagram. In this case again the key to exposing the diagram is the question of identity. In both the oral dialog's symmetrical one-to-one diagram and the television's one-to-many broadcast diagram, the identity of the communicating systems is defined and so is their role in the communication circuit. In the case of the web this identity is a bit harder to distinguish. Let's try to look at a few examples.

Most websites, like the *New York Times* website for example, function in a classic one-to-many broadcast format without offering interfaces for users input. This would be similar to the case of the television – the user's interaction defines the form of consumption – which pages to browse, at what pace, when to scroll the page and so on. All the content is predefined by an identified system – the site's editing board. It is in the site's benefit to fit its content to the model of the audience (just like the Nike TV ad fit its message to its audience's value system). Yet the audience can be abstracted as a general public since its passive consumption of information will not be relevant to the nature of the communication cycle. The only identity represented through the interface is that of the *New York Times*.

Other sites allow visitors to use text comments. Most blogs are built in this model. In this case the owner allows her audience to be active consumers of the information and to take part as authors of content within it through a predefined interface. The communication cycle is still one-to-many though a second layer of feedback is added and the audience of the blog can develop a form of a many-to-many interaction between themselves based on the context set by the blogger. The identities in action are first and foremost that of the blogger and then those of the community of followers that have the blogger and her writing as the context.

Others so called *web 2.0 services* such as *Flickr* and *MySpace* are based on user generated content and primarily offer interface as their product rather than content. The user becomes the author of the content and holds a perceived ownership over the content. The webpage is empty without the participatory content and is dependent on it. This diagram might appear identical to that of the second model, but it is in fact inherently different. The identity of the author is merely that of a privileged audience member. The actual identity in power which is formalized through its interface is that of the hosting site. The owner's interface again (like in the case of the NY Times) sees the members as an abstract public rather than a defined and identified community. Defined communities might emerge within this interface but the choice of interface and in that sense the context and format of the interaction is totally dependent on the service provider.

We can see in all these models that control over the interface is always kept in the hand of the site owner. Even the highest level of interactive content does not allow authorship of the interface – and so while content can be authored by the owner of the site or its audience the rules of engagement are always defined by one member of the communication cycle.

Commons-Based Peer Production - A New Ideology

An interesting phenomenon and one of the most radical interfaces of the *web 2.0* era is that of *Wikipedia- The Free Encyclopedia*. A major part of what makes Wikipedia's model so exceptional and have become the subject of an extensive discourse and research, is again the relationship between interface and identity. In Wikipedia's case there is no single identified author identity but a peer-produced context – the Wikipedia article. Yochai Benkler a Yale's

Law Professor and one of the most influential theorists of the open-source movement defined this phenomenon as a new force in the market. He coined for it the term Commons-Based Peer Production:

I call this commons-based peer production. Commons (as opposed to property) because no one person controls how the resource is used, they are either open to the public or a defined group. Peer production because it is done through self-selected, decentralized individual action.

Yochai Benkler (2006): The Wealth of Networks:

How Social Production Transforms Markets and Freedom

Benkler mentions Wikipedia as a prominent example in his writing but stresses that it is not that a Wiki is just some kind of a magical interface ingeniously designed to generate high-quality content. It has been the community of editors and moderators that from the early days of Wikipedia made sure that vandals, spammers and pranksters do not deliberately harm the commons-based peer production.

Wikipedia is a collective identity involving a complex governance structure. It might be the most liberal example of a successful web application we can see today, and is an inspiring proof of how alternative social structures can emerge on the web. Still, its communication circuit has a pattern similar to that of the Nike commercial:

Sender's concept: *We want you to edit content only if you can really make a constructive contribution to better the quality of the article and*

towards a stabilized goal. Wikipedia is interested in wide-consensus, not in individual expression or discussion.

Sender's encoding (embedded in the interface): *Wikipedia is a common effort and a valuable resource to all its users. The page you are browsing is the product of hard voluntary work by a group of people dedicated to a mutual goal. We invite you to be a constructive part of this group. Should you decide that your input can benefit this work, then and only then should you click the edit button, learn the specific WikiMedia syntax and make the edit. Remember your edit is always temporary and can be changed or reverted immediately by any of the other user or moderator. We trust you and believe you would act in the benefit of the greater good.*

The program / (meaningful) discourse: *Minimal interface, very rational and utilitarian. The article page is not editable in itself. The edit button is available for different parts of the page. The page leading to a discussion page appears at the top and is given very low attention (and its existence is unknown to most of Wikipedia's users). The WikiMedia interface is unique, it is not hard to understand but it requires learning, adjusting and a bit of trial and error. The interface allows you to preview your edit prior to submitting it.*

Wikipedia's ideology is deeply encoded into its interface. The fact it is run by a non-for-profit organization, and is free and open-source is a major part of that ideology and is to a direct

source for its success and for the trust invested in it by its contributors. We know for fact that Wikipedia's dominant code is widely exercised by tens of thousands of editors who follow the message and practice the ideology. We can firmly say that this ideology is also practiced by millions and millions of Wikipedia users who do not edit Wikipedia entries feeling not knowledgeable enough to contribute, or not worthy of taking part in this almost religious practice.

The Revolution Will Not Be Verified

Attempts at oppositional reading and reaction to Wikipedia's message, like spam and vandalism, are strictly reverted and blocked by Wikipedia's efficient moderation system, consisted of volunteers who have proved loyal to the cause and worthy of authoritarian powers.

On June 27th, 2005 inspired by the way Wikipedia successfully maintains a dominant code in an open and critical environment, the *Los Angeles Times* launched a new feature in their site which they called *Wikitorials*. The idea was that the editorial articles would be offered as wiki articles for the readers to participate on and collaboratively edit. On June 19th, after 2 days of seeing their editorials being spammed and vandalized this innovative initiative in journalism was canceled. This message was left on the page: “Unfortunately, we have had to remove this feature, at least temporarily, because a few readers were flooding the site with inappropriate material. Thanks and apologies to the thousands of people who logged on in the right spirit.”

“If you're going against what the majority of people perceive to be

reality, you're the one who's crazy”

Stephen Colbert (2006): The Colbert Report

(inciting viewers to vandalize Wikipedia while inventing the term 'Wikiality')

An interesting case of oppositional decoding of the Wikipedia interface was practiced by comedian Stephen Colbert on his satirical television show on *Comedy Central, The Colbert Report*. In the show Colbert plays a Republican television host dedicated to his ideology and to its defense by any means necessary, even in the price of total ignorance of reality (“*which has a Liberal bias*”). On May 9th, 2006, Colbert ironically proposed the term *Wikiality* as a way to alter the perception of reality by editing a Wikipedia article. Colbert analyzed the interface to his audience and proposed his own oppositional decoding. He suggested that if enough of his viewers would go and edit the article on *Elephants*, claiming that the Elephant population in Africa have tripled in the past 6 months, then that would become the reality, or the Wikiality – the representation of reality through Wikipedia. He also claimed that this would be a tough “fact” for the Environmentalists to compete with (“*Explain that, Al Gore!*”).

The chain of events that followed have required Wikipedia to lock the article on *Elephants* and to ban the user *stephencolbert* for using an unverified celebrity name (a violation of Wikipedia's terms of use). Colbert's actions was perceived as nihilistic, disrespectful, vandal and subversive to the ideology of Wikipedia. They have also exposed the set of beliefs and ideologies (that nevertheless I personally share) of Common-Based Peer Production.

If we refer back to our definition of interface as a point of interconnection between two independent systems, we can understand how both Wikitorials and Wikiality were taking the

wiki interface out of its context – exposing the delicate ideological balance it is situated in. Wikipedia (as an independent system) maintains a productive relationship with its users (the other independent systems) through its ideologically encoded interface. The LA Times Wikitorials experiment attracted an audience similar to that of Wikipedia (Jimmy Wales, the co-founder of Wikipedia actually contributed one of the first edits to Wikitorials) and attempted to borrow the interface model without understanding that the LA Times in itself represents a different ideology. The LA Times is not a Non-For-Profit and it does not stand for the Commons-Based Peer Production. The message it was encoding could not conceal this inherent difference between its own and that of Wikipedia. The LA Times did not have the patience to endure the vandalism that a wiki community requires in the early stages of self definition and after only two days it have used its ultimate authoritarian power as the owner of the interface – it called the experiment off. The Colbert Wikiality attack has used Wikipedia as a model for constructed ideology and have created a spectacle of information vandalism along the lines of the Yes Men's Dow Chemicals TV prank. It was in a way the opposite example to Wikitorials – the same system (Wikipedia) offers the same interface (the wiki interface) to an audience that is dedicated to an opposite ideology than its own. While in the LA Times case the ideology encoded into the interface was altered and generated oppositional decoding, in the Colbert Report case it was the same encoding but a deliberately oppositional decoding on the side of the Colbert fans (practicing the dominant code of Colbert's televised Wørd).

We can see by now that there is ideology embedded in the interface which acts as a message in itself (the interface is the message?). In the case of the web this ideology is almost always broadcasted in the model we are familiar with from earlier, less-interactive forms of mass

media. In both these wiki cases, though control was definitely distributed through the wiki interface, one side of the communication diagram always holds the keys. In both cases this side chose to execute its authoritarian power to 'break the deal' it attempted to promote through the interface. The fact that one side can break the deal and the other can't is a part of the interface and reveals its bias – this bias is in the foundation of how we come to know the web.

Unknowns Knowns in On-line Urban Space

We can now frame the paradox of user-interface at the age of proprietary software. While interface attempts to stand between two independent systems, to define their borders and their rules for engaging with each other, user-interface in software is almost always defined by the side of the software developer. In the diagram of software/interface/user the interface is controlled by the side of the software. While this proves to be in many cases an efficient model, I would argue that as a form of cultural practice, user-interface teaches us how to interact with systems and how to comply with the systems rules. The paradigm of user interface as compliance with biased rules of engagement is a way of manufacturing consent. I am interested in the role of the web as the most accessible platform in which we engage with the production of interface.

*"There are known knowns. These are things we know that we know.
There are known unknowns. That is to say, there are things that we
know we don't know. But there are also unknown unknowns. There are
things we don't know we don't know."*

Donald Rumsfeld, March 2003

In an essay titled *Design As An Ideological State Apparatus* Lacanian philosopher Slavoj Žižek reacted to Rumsfeld's attempt in amateur philosophy and suggested: “*What he forgot to add was the crucial fourth term: the 'unknown knowns,' things we don't know that we know which is precisely the Freudian unconscious, the "knowledge which doesn't know itself," as Lacan used to say.*” Žižek claims that it is with these unknown knowns that design deals. It is also the unknown knowns that are embedded into interface design. We “*don't know we know*” that we don't make the rules of the interface. We “*don't know we know*” that we follow a dominant ideology which is encoded into the interface. We “*don't know we know*” that our compliant use of interface is also defining our “know-how” of interfacing with other systems of control.

The great promise of the web was that it lowered the threshold of accessibility to media publishing, both as a consumer and a producer. Writing HTML is fairly easy and does not require any programming skills. The most basic and most powerful interface of the web – the hyperlink is in the grasp of any user. HTML is an open standard and is available for use in the public domain. If so, what are the unknown known of the web? What are the constructs of the web that we have come to take for granted?

HTML is the common denominator for web development, and is involved to some extent in any interface on the web. That is, of course, as long as you are the owner of the website. The construct of the Domain Name System (DNS) as it is used on the web creates a link between three elements: identity, control and space. While our experience of everyday life in the physical world formalizes these three elements and unites them in the body (as identity, as

control and as space), on the web they are projected to the webpage. Control over the space of the webpage is in the hands of the identity behind it. Unlike the body though, the online space is experienced as an information retail space – inviting people to wonder through it and shop for information. Like in retail space private space is maintained and the rules of engagement are defined by the identity in power. Unlike in physical space though, private control is not contrasted by other forms of control, it is the only control diagram on the web. Every space is owned and controlled. The web has developed like a hive of networked benevolent dictatorships which practice their control through interface.

“A unitary urbanism — the synthesis of art and technology that we call for — must be constructed according to certain new values of life, values which now need to be distinguished and disseminated.”

*Gil J. Wolman, September 1956
at the Lettrist International Delegate to the Alba Conference*

There is currently no public space on the web. The process which the Situationists International have warned us about in the fifties and sixties, of the city loosing its urban character have materialized in cyberspace – a social space completely controlled and privately owned. While this critique of the web might share a lot with the Situationist ideas of Unitary Urbanism, we must distinguish these two social spaces. While Unitary Urbanism and younger movements like *Reclaim The Streets* are based on a somewhat romantic idea of preserving and reclaiming the city's public spaces, the web has never had any public space. The closest thing to public space on the web in my view would be Wikipedia, which offers an alternative to the identity/property paradigm and offer a democratic governance system that in potential

allows any user to achieve access to position of power. But as we've seen Wikipedia in itself does not make its interface (and ideology) as accessible as its content and the process of governance is complex to the level a bureaucratic catch 22 – to attempt to change the system you need to become its greatest disciple. We can imagine that in physical world terms Wikipedia would be something like a public service institution. While unitary urbanists speak of the transition of the city's social life from the town square to the mall, the web has been built in advance as a mall and currently has no model for a town square.

Moreover, in our context the web is formally closer to ideology – in its immateriality, its artificiality, its detachment of body from identity and its practice of information. I believe that the similarity between ideology and the web makes the web an important field for social and political practice.

Our compliance as web users and the overarching tight privatized control of the web over our online culture are the web's biggest unknown knowns. We can't think of the web in any other way. Wikipedia proved this perception can be challenged when it comes to content, but we have yet to see a substantial challenge to the dominance of interface. This might be a call for on-line urbanism.

Cracks in the Walls

I am encouraged by current trends in web interface development. It seems like the call for more openness, further information mobilization and a challenge to the bordered website paradigm is coming from all ends of the web and new initiatives and technological trends are being promoted.

The past few years have seen a growing tendency for embracing web standards that keeps the content, the structure and the presentation of the page separate from each other. The content, lets say, a blog post can be presented and structured in different ways – presented with a different, composition, colors, fonts or structured differently – using the title with an excerpt from the text body and a mention of the time of the post and the category and so on... Using web standards (as promoted by the W3C) has many benefits for maintenance of websites but it also the propagator of the huge information mobility that we see on the web today. When the content can be extracted from the context of the page it can be published in different formats and start 'traveling' beyond the page.

One of the main developments making use of this information mobility is RSS feeds – a way to store content as a marked-up file that can be easily structured and presented in different contexts. And so new interfaces are being built to present information which is served from different sources on the web. This mobility of content beyond the private space of the webpage not only did not deprive website owners from the much desired 'traffic' in their site, but actually generated more traffic and greater exposure for sites previously anonymous.

Information feeds have become a standard that generated many innovation in the field of interface design and have promoted the idea of the web as a continuous information space rather than a collection of segregated private spaces.

Today there is a demand of many web services to open-up and provide hooks for external interfaces to use the data without having to browse to the website and conform to the specific

structure and presentation used there. The demand expands beyond text feeds. Media is also being fed through image, audio and video aggregators. Even interfaces are moving beyond the borders of the webpage. The most prominent example in this field is Google Maps which have not only provided a powerful way to present and browse maps on the web, Google have provided a hook into their application, what is called an API. API stands for an Application Programming Interface, unlike the user interface the Application Programming Interface allows simple ways to programmatically request services from a software. What this means is that the powers of one software can be shared by another, in the case of Google Maps, it has created an explosion of mapping applications online and have substantially contributed to the renewed interest in mapping and geography.

We cannot suspect Google of being just plain generous with its services, obviously Google benefits from having users information routed through their API into its databases for its ongoing project of surveying users browsing patterns and content in order to direct relevant advertising to them. Investing in APIs and with further penetration and dependency of users on the service is in the benefit of companies running a proprietary software product. It allows them to offer hooks to the service while maintaining control over the source code and not having to open it (i.e. Not having to expose the source code).

There are actually fairly much less examples of open web APIs for open-source services. One reason for that is that in many cases a semi-open API is not needed since complete control over the source code is available to the developers. Some open source web services that do offer APIs to provide better access to their systems are Wordpress, the open source blogging platform, Drupal the open source content management system and (again) Wikipedia.

While search engines have always attempted to survey the information on webpages and to refer to 'point at them' from afar, a couple of services have developed to formalize website metadata that is not based on web-crawler algorithms but rather on user generated data. A major trend in that field is that of social bookmarking. Social Bookmarking stands for repositories of links gathered, classified and tagged by users and shared between them. While attempts in the field can be dated back to 1996, the big boom of social bookmarking has started after the dot-com bubble burst, with various service models like Del.icio.us, Digg and Reddit amongst others. Social Bookmarking though practically just information and links, have become a standard process to collaboratively gather metadata about pages and to some extent have become ways to annotate a site by proxy. They further emphasize the tendency towards further interconnection of websites and more user authorship within them.

Another technological field of research that has been around for a while but have yet to take off in its full potential is the metaweb. Metaweb stands for web applications and platforms that attempt to expand the interactive features offered by webpages. The most common application of the metaweb are social annotation applications – allowing to leave text on pages (in many cases using the sticky note metaphor). Another common metaweb application resembles the function of a highlighter pen and allows to save marked-up text on a page. Metaweb applications often use a plug-in architecture to add the meta functionality to the page or they work in a proxy version – a copy of the page content under another domain that includes the meta interface. Metaweb applications are pushing the envelope on the way we've learned to experience the web, as they offer us to carry our own interface with us as we browse the web.

We can be encouraged by these attempt to bridge the closed walls of the webpage and to embrace them as a natural tendency of users to find more open models to the web. It seems like even though the webpages have always been built on a model of individualism, ownership and privatization, more and more users are demanding a public space on the web.

There are several ways I can see to challenge interfaces, to reexamine the privatized model of the web and to promote what we previously defined as on-line unitary urbanism. They require understanding of the current technological trends and an open discussion of the power structures behind interface.

I would like to offer some suggestions through two approaches to this task, one in the practice of tactical media and the other in what I would refer to as strategic media. Each can be used, apart or in conjunction to retrieve user agency in the interface, and to claim interface as a proposition rather than a construct.

Something To Do: I - Tactical Media

There are many definitions to tactical media. All of them speaks of this practice as a short lived 'hit-and-run' type of use of media in opposition to a target of power. While I have some doubts about the efficiency of the short-lived practice, I sympathize Alex Galloway's call for the goal of tactical media:

*“The goal is not to destroy technology in some neo-Luddite delusion,
but to push it into a state of hypertrophy, further than it is meant to go.*

Then, in its injured, sore, and unguarded condition, technology may be sculpted anew into something better, something in closer agreement with the real wants and desires of its users. This is the goal of tactical media.”

Alexander Galloway

Protocol – How Control Exists After Decentralization

In the case of interface, the goal of tactical media is not to refrain from engagement with systems, but rather the opposite – extend it. I would like to briefly touch on several such tactics. One them is hacking.

I see hacking as much more than a technological skill. I see hacking as one of the most important approaches to the world we are living in today. In a world that becomes more controlled and consolidated from day to day, hacking stands for examining relationships with a fresh eye, it is an approach very close to Hall's negotiated decoding. And indeed what I am promoting is for interface to become more negotiated.

Since interface has to involve some communication it is often a good start for a hacker to start searching for a way to exploit the system. Not all hacks involve complex programming, for example, an interesting tactical hack on interface is the *Google Bomb*. In 2003 Anthony Cox have created a parody of the “404 - page not found” error message in response to the war in Iraq. The page looked like the error page but was titled “*These Weapons of Mass Destruction cannot be displayed*”. The rest of the page kept switching between the original text of the error message and the prank concerning the lack of proof that Saddam possessed any WMDs.

The page has become a successful amusing meme and have gained a lot of popularity and traffic for the first couple of weeks. Four months later, after the meme had already died, it was reborn in another form. It seemed like when searching for the term “weapons of mass destruction” google returned Cox's prank site as the first result. Google's page rank algorithm had calculated all the page linking the term to Cox's site and has 'assumed' that this mean that site would be the most relevant result in a search for “weapons of mass destruction”. While this prank and the metaphorical search result issue were initially the cause of a pure coincidence, the users have decided to embrace it and a big grassroots campaign were started through blogs to link the term to the page to assure the hack is sustained.

Google prides itself in its unbiased algorithms and in their mathematical accuracy, but the Google Pagerank technology - the heart of Google's search engine can in fact be decoded as a latent interface. It is designed to crawl the web and survey its content to decide which site is considered by enough other sites a reliable source. In the case of Google Bombing the algorithmic surveillance is being appropriated deliberately to inject a specific page as a search result. Google's top search results are a luxurious goal and are not at all meant to be interactive. Yet, the Google Bomb *of mass distraction* managed to divert the system and not only oppose the Bush administration through a political parody, but also oppose the Google administration of the web and game its so called unbiased rational. And so, thanks to the Google Bomb hack, according to Google circa 2003 the most relevant answer to the search for Weapons of Mass Destruction was “*These Weapons of Mass Destruction cannot be displayed*”.

Google Bombing did not involve writing code, but it did involved reverse engineering. Reverse

engineering stands for analysis of a system's structure in order to learn its processes and through that possibly introduce change in the system. Reverse engineering is a practice at the heart of hacking but its core ideas can be found at the heart of political activism and movements for social change. If we can practice reverse engineering in software maybe we can deploy the same approach to reverse social engineering.

Tactical media should question interfaces and promote a critical discussion of its role in society. Tactical media practitioners should offer hacking spectacles such as the Google Bombing but also inspire and educate others in the approaches of hacking – hacking software, hacking hardware, hacking interface, hacking the social structure.

Something To Do: II - Strategic Media

“For there to be such a thing as tactical media implies that there are also strategic and logistic media. These terms go together, and describe 3 different levels at which contestation can take place. If the tactical is local and contingent, the strategic involves planning and coordination. The logistic would then refer to systematic, global and long range organizations of forces.”

McKenzie Wark

Strategies for Tactical Media - Realtime (Oct/Nov02)

Strategic media is a different approach from the short-lived hit-and-run. Strategic media is a “hit-and-stay” method of opposition. It often shares some of the goals of tactical media and

sometimes even involves tactical practices as a part of the larger scope strategy. Strategic media is a more complex practice as when you “*hit-and-stay*” you risk being called to take responsibility for your actions. Not only from the target you oppose or other authoritarian institutions, but maybe even more so from your peers in the struggle. Unlike its tactical younger brother, strategic media requires patience and leadership. Strategic media comes from an inclusive approach to social and political conflicts – practitioners of this strategy don't see themselves as external to the culture they are attempting to change. I would argue that identifying oneself within the system she opposes, makes her even more committed to the struggle. Strategic media, though indeed harder to execute and require further commitment and less immediate satisfaction, promises a more sustainable system, a system that can mature and grow and not only oppose power, but actually propose viable amendments.

Strategic media shares a lot of the values of parasitic media in its attempt to influence the system from within. It is always a conflicted practice and is bound to produce some miserable failures, but I believe that after almost two decades of tactical media we should realize that we are winning battles but loosing the war.

One of the main strategic media practices we've seen bloom especially in the past two decade since the rise of the internet is the open source and movement. What is most inspiring to me in this movement is that it was not led by top-down ideology, it was led by a very basic tendency of people to want to be free within systems. The Linux project, the Firefox browser, the Apache server, the Creative Commons licenses and (once again) Wikipedia are all a part of what Benkler defined as the new ideological force in the market – the commons-based peer production. All of these examples and thousand others can be thought of as strategic media

practices.

A good example of how a tactical media practice in the field of interface have turned strategic is the case of Greasemonkey. Greasemonkey is an extension for the Firefox browser that allows users to install userscripts - javascript hacks that automatically execute and modify the webpage on-the-fly. That is – change the page that is displayed to the user while not affecting the source of the website on the host server. Greasemonkey allows users with coding skills to add, remove or fix features on the page their browsing, it also allows them to integrate content from other sites and web services into the page.

It was first published in December 2004 by Aaron Boodman, who according to Wired magazine is “...a software engineer who got sick of dealing with the Web on other people's terms” and it has been developed since day one as an open source project. Three months later Boodman started receiving code contribution from other developers, another three months later it has become the third most popular extension to the Firefox browser. Later that year a book on the O'Reilly series was published titled 'Greasemonkey Hacks' and the community of hackers, that have developed approximately two million userscripts, have been growing since then.

Greasemonkey, like any other successful open-source project would have never succeeded without the initial leadership of Boodman and the other emergent hackers who got the community excited about the process. The very nature of javascript is its openness – since it runs on the client side (on the user's computer) any user could easily open the userscript and based on her javascript skills adjust and modify the script to fit her own needs. Greasemonkey

did not only offer a channel to easily hack interface – it has also made sure that the new hacks are easily hackable.

We can think of userscripts (most of them consisting of just a few lines of code) as tactical media interventions in webpages, while Greasemonkey, as a platform would definitely be a strategic media initiative – offering a standard and a committed leadership which was well received by the hacker community.

Conclusions

The web has become maybe our main interface to globalization, it has been inspiring us to engage with it and have been teaching us how to do it. Interface is an extremely important field of political action today since it is not only our engagement within software and networks that is on the line. It is our perception of engagement and responsibility in a world that is drifting away from social structures based on human relationships, involving mutual dependencies and trust further into formalized technocratic structures based on numbers and statistics leading us to segregation, privatization and profit/loss based relationships.

Interface is the key to responsibility in political structures. Democracies offer an interface to governance, not only as a way for a government to be based on the will of the people but as an interdependent system that implies distributed responsibility. Processes of privatization and segregation have been affecting the way we perceive democracies. The latent interface rendering the single vote almost completely powerless have resulted in alienation and lack of trust between governments and the public they represent.

I see the crisis of democracy as an interface problem. When groups of power can interface with governance through finance the idea of equal representation is broken. The current political system in the US that allow for political lobbying and fundraising for candidates have created an interface for corruption. (not rendered as such for its legality)

There is no doubt that voting through money is an anti-democratic interface. In the beginning of the 19th century the perception of power was different, women were not allowed to vote in the US until 1920. Since World War II questioning the capitalist democratic model was considered treason and was a social and ideological taboo. The fall of the Berlin wall and the collapse of the Soviet block (which also marks the rise of tactical media) have allowed for a new opportunity to examine the interfaces of the American democracy but the ruling ideology of this era which is well embedded into the structure of the web, is one of privatization and passivity in front of systems.

Bureaucracy became the interface between citizens and governance. The mall replaced the town square as an interface to public space. Financial power became an interface to democracy, and to some extent the term 'democracy' became an interface for financial power. Today, interfaces are designed to channel our behavior and the way we interact with the systems behind them. They are revealed to us as tools. We have learned to trust them and have grown dependent on them. We have gotten so used to our interfaces that we forget to critically examine them and reveal their biases. We forget to ask who designed the interface, and on whose behalf? how was it introduced to us? What is our desired interaction with the system and how is it channeled or not channeled through the interface?

While they offer us formalized interaction, software interfaces teach us not to expect to define the rules for engagement. This is a call to regain agency, through hacking, open-source and media activism. I believe we should use the practices of tactical media and strategic media to oppose the logistic media of global power. I believe there is an inherent conflict in interface, a conflict we need to engage with and attempt to subvert. New ideologies are developing from global interconnectivity, from the free culture and the open source movements and from hacker culture. These new ideologies are developed from bottoms up – from communities sharing mutual goals rather than those in powers defining an arbitrary abstract public. This new action demands a renewed social dependency, openness, creativity, leadership and trust. The power balance of interface can be reconsidered. It is time for us to sit down and rewrite our rules of engagement.

Bibliography

Althusser, Louis, “Ideology and Ideological State Apparatuses (Notes towards an Investigation)”
(*January-April 1969*) *Lenin and Philosophy and Other Essays* (1971)

Benkler, Yochai, “The Wealth of Networks: How Social Production Transforms Markets and Freedom”,
Yale University Press (2006)

Boutin, Paul, “Monkeying With the Web”, *Wired Magazine*, Sept 2005

Galloway, Alexander, “Protocol — How Control Exists After Decentralization”, MIT Press, 2004

Habermas, Jürgen, "The Public Sphere: An Encyclopedia Article," *New German Critique* 3 (1974)

Hall, Stuart ([1973] 1980): “Encoding/decoding”. In Centre for Contemporary Cultural Studies (Ed.):
Culture, Media, Language: Working Papers in Cultural Studies, 1972-79 London: Hutchinson, pp. 128-38

Klein, Naomi, “No Logo: Taking Aim at the Brand Bullies”. New York: Picador USA, 1999.

Reinhart , Tanya, “Interface Strategies: Optimal and Costly Computations”, MIT Press, (2006)

SAUSSURE, F. de (1993) “Saussure’s Third Course of Lectures in General Linguistics” (1910–1911),
Oxford: Pergamon.

Wark, Mackenzie "Strategies for Tactical Media" *Realtime* #51 Oct/Nov 2002

Wolman, Gil J. Address by the Lettrist International Delegate to the Alba Conference of September 1956

Zizek, Slavoj, “Design as an Ideological State-Apparatus”, (2006) first presented: ERA05:The World Design Congress in Copenhagen (Denmark).