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► **To cite this version:**

Everardo Reyes-García, Imad Saleh. Web Studies. Proceedings of the 1st. international congress. 2010. hal-04078226

**HAL Id: hal-04078226**

**<https://hal.science/hal-04078226>**

Submitted on 22 Apr 2023

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# Web Studies

**Proceedings of the 1st. international congress**

Edited by

*Everardo Reyes-García & Imad Saleh*

**Web Studies 2010. 1<sup>st</sup>. International Congress**

Published by *europia* Productions  
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Email: [info@europia.fr](mailto:info@europia.fr) <http://www.europia.fr> <http://www.europiaproductions.com>

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## **Overview of Web Studies**

The Web may be conceived as an expansive object, an extended space that reaches nearly every domain of life and concerns many different scientific disciplines. This space can be described according to data structures, visual surfaces, algorithmic processes, cultural uses, means and venue for artistic expressions and site of human-computer interaction. While some of these categories correspond to the specific interests and demands of certain fields of inquiry, they also have a practical dimension that goes beyond the confines of academic disciplines and implies the crossing of very different perspectives. One of the most interesting questions is indeed the way in which practices of production and use influence and re/shape each other as well as the tools and media themselves.

From this general starting point, we aim at exploring the social dimension of Web applications as well as the interaction and co-existence of humans with artificial agents – interfaces, algorithms, information architectures – forming socio-technical hybrids that are increasingly difficult to dissect. And our research tools and methods have themselves become hybrid. Mixtures of brains, knowledge and research software make sense of the growing piles of data; they produce new and innovative ways to explore and visualize information and to make the Web comprehensible; and they generate theoretical metaphors aim at understanding the space they are operating in. The notion of Web Intelligence is therefore of particular interest to this first edition of the Web Studies conference. Intelligence, here, is understood in a double sense: first, as the process of interaction that happens not only between humans and technical systems, but also between human actors mediated by Web platforms, the process in which knowledge is produced and applied, information is gathered, interpreted, and used in everyday situations. Second, as the tools and methods that help us understanding the infinite variety that marks this online ecosystem.

The 1st international congress on Web Studies aims at providing a venue for researchers and professionals from different backgrounds for discussion, study, practical demonstrations, sharing, and exchange on new developments and theories regarding the World Wide Web. The congress therefore invites contributions from a heterogeneous set of fields and domains such as: Web systems, computational intelligence, human-computer interaction, digital theory, Web sociology, and well as interactive and digital arts. We also encourage contributions from businesses and organizations.

## **Acknowledgements**

We would like to thank all people involved in making Web Studies 2010 possible: the scientific committee; our keynote speakers, Robert K. Logan and Mark Bernstein; and our supporters, University of Paris VIII, Kurator, Taylor&Francis and The Journal of Mobile Multimedia.

The organization of this event could not have been possible without the unconditional support of Dr. Roberto Rueda, president of the Center Zone of Tecnológico de Monterrey, and the enthusiasm of students from Campus Toluca, most specially the BA in Animation and Digital Art and the BA in Communication Sciences. We are also grateful to Alejandro García, Geoff Cox, Linda Hilfling, Arcángel Constantini and Joasia Krysa for their assistance in mounting the art exhibition 'After the Net (3.0)'.

The congress was also extended with workshops. Instructors were Marc Veyrat and Frank Soudan; Samuel Szoniecky; Marissa Díaz; Matthieu Renault, and Justin Ascott.

And of course we thank all participants for their confidence and participation. We like to think of ourselves as a family, as a network of people sharing topics of interest to make the Web a field of study.

*Everardo Reyes-García & Imad Saleh*

*Toluca, Mexico. March 3, 2010*



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# Antisocial Networking

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## Abstract

*Antisocial Networking refers to a repository of projects that explore the pseudo-agency of online social platforms. It takes a number of recent software projects as its inspiration to reflect upon the fashion for 'participation' within the arts sector and culture in general. The concern is how the Internet is increasingly characterized as a 'platform' (or collective machine) for 'social' uses, but to question what is meant by such descriptions. Although social networking platforms rely on user-generated content, what is the nature of this participation? What alternatives can be identified? Emergent forms are undoubtedly dissimilar to the ways in which social relations have been traditionally organized, but in general, appear to reinforce existing power structures. The suggestion of the paper is that without the identification of antagonisms that underpin sociality, politics simply cannot be engaged.*

*Today the enemy is not called Empire or Capital. It's called Democracy. (Badiou 2002: 14)*

**Antisocial Networking, <http://project.arnolfini.org.uk/antisocial/>**

By 'anti-social', I do not mean (to be) unfriendly but to emphasize that social networking platforms are already anti-social in as much as they display contradictory tendencies - both connecting and disconnecting socialities. In this way, and undoubtedly part of a backlash to the popularity of social networking in general, I am not simply referring to 'antisocial web' sites such as Hatebook that enable you to create a list of people that you don't want to be friends with (as opposed to

Facebook that allows you to collect friends).[1] Rather, the application of the term anti-social is meant more in the tradition of 'negative dialectics' to highlight the paradoxical nature of positive criticism (Adorno 2000).[2] Despite rightly focusing on issues of ownership and distribution, some criticism is misdirected; for instance, in emphasizing the threat of social networking to established hierarchies of expertise and a defense of copyright (Keen 2007). Better to begin negatively.

With this in mind, the emphasis in these notes is to draw attention to how the production of non-antagonistic social relations has become central to economic production and social control. To take a typical target, the politics of Facebook with its 59 million users, reveals how social exchanges are mediated by the wider culture and political economy (Hodgkinson 2008). Personal information (ID and consumer preferences) is voluntarily submitted and can then be accessed by agencies reflecting pervasive viral marketing techniques, hegemonic corporate ownership and capitalistic economic principles – all designed to derive profit from friendship. Furthermore, the social relation is based on weak ties (as opposed to the relatively strong ties of peer production for instance) and an 'unstable social contract' between users and platform owners (Bauwens 2008). That services are provided on the basis of latent profitability indicates the capitalist logic of producing value as cheaply as possible and making sure ownership is kept in the realm of private property.[3] A closer look at terms of service agreements reveals more detail here and confirms that ownership is carefully managed.[4] The contradiction is clear: 'The social web facilitates an unprecedented level of social sharing, but it does so mostly through the vehicle of proprietary platforms.' (Bauwens 2008) In such ways, the social relation is produced in restrictive form.

No less significant is the issue of security in the challenge of managing the networked relations between technologies and biologies – in the management of life itself (referring to Giorgio Agamben's distinction between 'bare life' and the political subject, 1998). In other words, the network needs to distinguish whether you are a friend or not, and as such is a neat example of biopolitical control. The network has evidently become a manifestation of ideology in itself - and one in which connectivity remains a security threat beyond a purely technical form (in offering a platform for terrorism or counter-terrorism alike).[5] Evoking Carl Schmitt's notion of enmity (in *The Concept of the Political*, of 1927),[6] the political differentiation of friend or enemy (aka facebook or hatebook) lies at the centre of this. Nevertheless the starting point for these notes is antithetical not simply oppositional (or anti-Semitic or anti-America like Schmitt), and draws upon an understanding of the 'negation of negation' to understand how dialectics is not simply a method that proposes a reversal of one thing with another but a deeper and more reflexive engagement.[7]

With this in mind, these notes are arranged as a series of speculations that examine the paradoxical nature of the terms in common use: 'the social' (making particular reference to Bruno Latour's *Reassembling the Social*) and 'networking' (with reference to Ned Rossiter's *Organized Networks*); moving to the antithetical term of 'notworking' (after Antonio Negri) to shift attention to social relations that are unfriendly in character. The suggestion is that without the identification of antagonisms that underpin sociality, politics simply cannot be engaged. (Do I need to add?) Without politics, our friendships are empty of meaning and our exchanges lead to nothing but the commodification of life itself.

## 1. The Social

The use of the term 'social' has become commonplace and somewhat emptied of meaning especially where communications technologies are concerned. It is only vaguely defined at best. By returning to the first principles of sociology (the science of living together, and its Latin etymological root 'socius' meaning 'someone following someone else', a 'follower', an 'associate'), Latour proposes to examine what is assembled within social formations (literally *Reassembling the Social* as the book title confirms, 2005: 108). As a consequence of expansions in science and technology, he claims that a problem arises, such that the 'social seems to be diluted everywhere and yet nowhere in particular' (2005: 2). It is not that there is no such thing as society (as Margaret Thatcher famously put it) but there is a problem in regarding it as a given homogenous thing.[8] Rather, it is possible to designate it as a tracing of associations of heterogeneous elements, according to Latour. It is not a thing but an assemblage.

In striving for a more 'relativist' definition of the social and drawing upon the 'uncertainty principle' (where the observer cannot be disentangled from the observed), Latour tries to develop 'uncertainties' over key concepts: the nature of group formations, actions by multiple agents, objects demonstrating agency, as well as ongoing disputes over the nature of facts and the truth claims of social science (2005: 22). The uncertainties do not represent confusion but an opening up of the performative dimension of the social. This comes close to action in as much as action is understood as a coming together of complex, diverse, and interlinking agencies locked into uncertain relations. This is the 'actor-network' that describes not a source of action but a 'moving target of a vast array of entities swarming toward it' (2005: 65).[9] Indeed, other agencies are participants in action (participant-observers) that produce new fluid (liquid) associations that reflect the socio-technical operations of networks.[10] If agency is embedded in subject-objects and object-subjects under dynamic mesh-network conditions, then in the case of social networking platforms, agency is evident in the software, the networks/spaces, users/subjects, and

so on - in the production of a social relation and the networking platform through which it is reproduced.

Herein lies part of the problem (of ANT) that in describing such fluid and contingent relations the network is seen as having a determining effect on interactions therein. The assumption that 'society is ontologically flat is an excellent starting point, but a weak ending of the analysis' as Felix Stalder puts it (1999). This becomes a question of relative power in that not all connections in any network are equal and certain connections are granted privileges over others. This is a description of network power that follows 'power laws' of variable, uneven and unequal distribution, and that has learned from history to use all varieties of authority and organization at its disposal. Correspondingly, counter positions need to take advantage of the vulnerabilities in networks by exploiting power differentials that exist in the system.[11] What is required is more detail on network topologies and how power is organized therein.

## **2. Networking**

The difficulty is, as with the term 'social', the term 'network' has become so pervasive that it is in danger of losing its meaning or of over-determining its effects. All the same, and in general terms, it seems clear that the network represents a key organizational principle for understanding contemporary politics and society in general (from the activities of peer-to-peer file-sharing to the viral operations of economic and financial markets). Indeed network forms of organization appear to increasingly prescribe power relations and control structures.[12] Emergent forms are dissimilar to the ways in which social relations have been traditionally organized, but, in general, they appear to reinforce existing power structures. According to Rossiter (2006), there is an urgent need for new institutional forms that reflect 'relational' processes to challenge existing hierarchical and centralizing systems. In contrast to what he calls 'networked organizations', emergent 'organized networks' are horizontal, collaborative and distributed in character offering a distinct social dynamic and new forms of agency appropriate to networks (based on the movement and flow between multiple agencies). The difference, not least, is how they have responded to developments in networked communications technology and the issue of intellectual property rights: on the one hand, using this as a regulatory mechanism to enforce or extend existing power structures, and on the other, advocating a loosening up of property rights. The contradictions between these characterizations reflect the political complexities and uncertainties associated with sociality and life in general.

The potential to transform social relations is somewhat demonstrated in the dynamics of social networking technologies. But it is the institutional nature of this, as a description of the organization of social relations that makes it thoroughly political issue and why the many popular examples can be seen to be deeply compromised. For instance, Facebook demonstrates the potential for self-organization through its networked capacity and at the same time the drive to commodify collective and communicative exchanges. Organized networks evidently represent relative institutional autonomy but they also need to operate tactically, engaging both horizontal and vertical modes of interaction. Rossiter stresses the point:

'The tendency to describe networks in terms of horizontality results in the occlusion of the "political", which consists of antagonisms that underpin sociality. It is technically and socially incorrect to assume that hierarchical and centralizing architectures and practices are absent from network cultures.' (2006: 36)

The plurality of nodes in networks does not guarantee a more inherent democratic order; indeed it is arguably serves to obscure its totalitarian substructure.[13] This is the trick of social networking in offering the promise of democracy but though centralized ownership and control where the web platform itself mediates relations (unlike peer to peer file sharing for instance). Crucially, the software and the knowledge to shape it, is no longer stored locally on the user's hard drive but through the browser interface (and in this sense amateur production constitutes a lack of sufficient access to the means of production).

Network power can also be seen in the ways work is reconstituted and how as a consequence of more emphasis on socialised and communicative work new management techniques tend to stress horizontal rather than hierarchical organizational structures. As with the discussion of network control, this in itself is a technique of power that Maurizio Lazzarato takes to be more totalitarian than the production line, as it involves the willing subjectivity of the worker in the process (1999: 224). He explains the logic thus:

'If production today is directly the production of a social relation, then the "raw material" of immaterial labor is subjectivity and the "ideological" environment in which this subjectivity lives and reproduces. The production of subjectivity ceases to be only an instrument of social control (for the reproduction of mercantile relationships) and becomes directly productive, because the goal of our postindustrial society is to construct the consumer/communicator – and to construct it as "active". [...] The fact that immaterial labor produces subjectivity and economic value at the same time demonstrates how capital has broken down all the oppositions among economy, power, and knowledge.' (1996: 142)

The quote reflects the operations of social networking sites where social relations are produced as friendly rather than antagonistic. As the market outsources manufacture to its consumers, it somewhat resolves the contradiction between producers and consumers. It: 'tends not to sell any product at all to the consumer, but rather sells the consumer to the product' (Prada 2007). In such ways, the participatory work ethic of social networking is interpreted as an expression of new forms of control over subjectivity. The value that is stolen no longer relates simply to labour power but to subjectivity too.[14] In the mesh-network of subjects-objects, the worker-user subject voluntarily produce themselves as an integral part of the user-generated objects they produce. Correspondingly, a shift is required in rethinking the social as a shared and common definition of what it means to be part of the same collective. This is important, as Latour emphasizes, because: 'If there is no society, *then no politics is possible*'. (2005: 250)

### **3. Notworking**

The parallel between social networking and working in general (or the network and 'worknet', if preferred)[15] is encapsulated in the way the networked computer has become like a factory, and has redefined social practices and relations. This is the 'social factory' in which work is no longer confined by the walls of the factory, and is more dispersed, intellectual, immaterial and communicative. The dislocation of class antagonism in the social factory is close to what Marx referred to as 'real subsumption', to conceptualise the way that exploitation is dispersed and subsumed into the wider social realm. Consequently, the control of communications, and the labour related to communications, have become the key sites of antagonism. Furthermore, as labour time has become more difficult to measure and is less distinct from time outside work, much of it now practised as 'nonwork', outside of traditional production processes - 'notworking' as opposed to networking.[16] The confusion over what constitutes work and 'not-work' turns attention to situations where work takes the forms of nonwork. Pil and Galia Kollektiv extend this point, by drawing on Paolo Virno's observation that work and action have become indistinct. They argue for uncovering latent action in non-work (2007).

As forms of work become ever more undifferentiated, it is work itself that needs to be transformed and made more autonomous according to Antonio Negri, not by the reappropriation of work but by the refusal to work - notworking. The position of refusal derives from Mario Tronti's essay 'The Strategy of Refusal' (of 1965), following the logic that capital 'seeks to use the worker's antagonistic will-to-struggle as a motor for its own development' (2004: 11). The strategy of

refusal represents not liberation of work but from work associated with exploitation, and thus affirms autonomous production. But is simply refusing to use certain social networking sites effective refusal? I might refuse to register my account details and assemble my friends on facebook or enemies on hatebook, but the challenge is to make this into a more strategic political issue by identifying what is held in common – as part of the commons - or what Latour describes as redefining the 'well-assembled collective'.<sup>[17]</sup>

This is a socio-technical issue required better-assembled collectives of people and machines. There is need to identify the invisible architecture of the network and its protocols locked down by proprietary interests in order to make it more open, participatory and more public in the spirit of distributed infrastructures. For Rossiter too, organized networks offer a positive opportunity to develop strategies and techniques of better organization. For instance, peer production offers an obvious example of the opportunity to explore the limits of democracy and rethink politics from within network cultures.<sup>[18]</sup> In such scenarios, a challenge is mounted to definitions of social wealth: a distinction between revenue and benefit sharing that the commons is founded upon (on the one hand, extracting monetary value from social processes and on the other imagining more sustainable alternatives to capitalist economy that have collective benefit). A peer-to-peer system in this respect might be considered anti-capitalist or 'post-capitalist'<sup>[19]</sup> in the production of a social relation based on sharing and the common good. Virno, in *A Grammar of the Multitude*, makes a similar point when he argues for a political space in which 'the many' tend to common affairs (2004: 40). In such descriptions, terms like social networking holds the potential to transform server-client relations into peer-to-peer relations but only if held within the public realm, outside of private ownership and as part of the commons. In contrast, the rise of social networking as we know it with its participatory ethic has been largely stolen from free software development - interpreted by Dmytri Kleiner and Brian Wyrick as 'capitalism's preemptive attack against p2p systems' (2007: 16).<sup>[20]</sup> However, social networking demonstrates underlying contradictions: also standing antithetically for relations that reflect the dynamics of open network architectures and antagonistic political formations.

Political struggles need to reflect these socio-technical dynamics that seem to be encapsulated by conflicts over sharing digital content, such as those over peer-to-peer filesharing. In what Angela Mitropoulos refers to as the 'softwar' (2007), work and nonwork related to social networking software clearly invoke antagonistic not friendly relations. The suggestion of the paper - in support of *antisocial networking* - is that without the identification of antagonisms that underpin sociality, politics simply cannot be engaged. Better organization suggests new forms of agency that present coalitions of human and non-human actors enmeshed in radical networks.



## 4. Endnotes

1. Hatebook is an 'anti-social utility that connects you with the people YOU HATE' (<http://www.hatebook.org/>). Other antisocial networking sites include Snubster, Isolatr, Introvertster, and Enemybook (see *New Scientist*, "Antisocial networking", April 05, 2006, and Rajiv Mathew, "Now, anti-social networking!", *iDC*, 12 January 2008).
2. In Adorno's view, theory and criticism are combined as negation responding to the apparent failure of political philosophy to realise its aims. Moreover, positive criticism leads to nothing and has become a self-serving commodity.
3. In this sense, the distinction between web 2.0 and 1.0 is just another example of capital recuperating the democratic potential of a 'new' technology and taking it into private ownership - including exploiting the work of the free software community in large part, and other publicly funded enterprise such the development of the Internet itself (Kleiner & Wyrick 2008).
4. This is something that Linda Hilfling's project *Participation 0.0* (2007) highlights effectively: <http://project.arnolfini.org.uk/projects/2008/antisocial/view.php?id=9>
5. If the network is a manifestation of ideology in itself, the question (in Hegelian terms) becomes how to encourage those that are part of network culture to make it operate for-itself (not simply in-itself).
6. The notion of enmity and the friend/foe paradigm is identified by Carl Schmitt as a fundamentally political one and the basis for his views on state sovereignty and autonomy (1996). The second reference to Schmitt is based upon his particular dislike to American consensus-democracy.
7. Negation of negation describes how negation operates twice - once, and then again upon itself in a reflexive manner. This logic underpins the Hegelian principle that it is only through 'abstract negativity' that 'concrete universality' can be attained. In other words, something only becomes 'concrete' when it reintegrates with its primary state. The role of negation, and its negation, in this context is important to understand some of the ways in which dominant ideas attempt to reproduce themselves, even when an oppositional stance is taken.
8. The infamous quote, by the British Prime Minister ('There is no such thing as society'), appeared in an interview for *Woman's Own* magazine (Sep 23 1987).
9. Latour explains that it is never clear who is acting, like the actor on the stage who is never alone but part of a larger apparatus. It is forever unclear whom and what is making the action - like a puppeteer who does not have, or does not believe they have, absolute control over the puppet, and it is unclear who is pulling the strings (2005: 59).
10. By 'network', in addition to information technology as in the work of Manuel Castells, Latour is referring to the older ambiguous description of interconnected points informed both by a sociology of organization.
11. This is the position taken by Alexander R. Galloway and Eugene Thacker, in *The Exploit: A Theory of Networks* (2007).
12. This position is underpinned by an understanding of *biopolitics* in the work of Foucault and *control* in the work of Deleuze.
13. As an example, information on the undemocratic nature of wikipedia has been much discussed: [http://www.theregister.co.uk/2007/12/06/wikipedia\\_and\\_overstock/](http://www.theregister.co.uk/2007/12/06/wikipedia_and_overstock/)
14. Antonio Negri explains that two oppositions are at work: that between use value and exchange value of orthodox Marxism, and in addition 'objectified labor against subjective labor' (1998: 68).
15. The alternative term 'worknet' is sometimes used to establish the action involved in the interconnections of 'net' and 'work' and to stress the work involved in networking (Latour 2005).
16. Geert Lovink refers to 'networking is notworking', in connection to George Soros saying that chatting is a distraction from important work (2005: 3).
17. Confusion lies at the heart of sociology, according to Latour, 'between assembling the body politic and assembling the collective' (2005: 161).
18. This is what is referred to as 'non-representational democracy' to describe democracy decoupled from sovereign power. Rossiter is citing Virno's *The Grammar of the Multitude* (2004).
19. And to Bauwens, this represents possibilities for a new social order in which the commons relates to the market based on post-capitalist principles of value creation and sharing (2008).
20. This is what they refer to as the 'Info-Enclosure' as opposed to the 'Commons' (2008: 19). They point out that Usenet offered much the same services long before web 2.0, and how, in general, creative work is stolen from source.

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# The Matrimonial Web of Migrants: doing ethnic business otherwise

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## 1. Introduction

Communicating in order not to be uprooted; moving one's intimate sphere in the spaces of migrations; linking oneself and cultivating one's networks; these are daily practices of the connected migrant. This "meeting know how" (which has always been required for community reproduction and migrations) has developed and has become diversified with the emergence of the web. The use of social platforms by migrants is very substantial and cannot "escape" from the domain of intimate relations (sexuality, love, marriage, etc.).

During the last years, many researches have been conducted on web-mediated dating (Illouz, 2006) (Lardellier, 2005) (Tisseron 2008) but little attention has been paid (or marginally in the English-speaking world) to the web spaces where the issue of dating – and marriage - overlap with the question of migrations - and ethnicity. Though this combination is very significant given that the now over hyped web 2.0 or social web may be conceived as having a double origin: On the one hand, it arises from "community websites" (AsianAvenue, BlackPlanet and so on) which were among the first to offer functionalities of profile creation and friendship relation management (Boyd et. al., 2007). On the other hand, it arises from dating websites inasmuch as, Danah Boyd reminds us, Friendster (the first actual social network site) had been initially developed in order to be a rival of Match: the hypothesis was that the "friend of a friend" had more probabilities to be a good partner than a "stranger".

The present research is grounded on three case studies<sup>1</sup>. The first one is dedicated to the range of community dating websites – based on ethnic, religious, sexual affinity criteria – offered by the Australian company Cupid Media. The second one deals with Russian (e)-mail order brides, considering especially the French online/offline matrimonial agency Eurochallenges. The third one has, as an object, marriage among the Indian diasporas through Shaadi website. The heterogeneity of the three case studies allows us to observe different matrimonial strategies, different partner selection criteria and motivations, various functions of homophily and heterophily in the search for a soulmate.

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<sup>1</sup> It has initially been conducted in the framework of an European Commission (IPTS)'s project in 2007/2008: Diminescu D., Renault M.; Gangloff, S., Picard, M.-A.; d'Iribarne C., Hassane S. (2009): *ICT for Integration, Social Inclusion and Economic Participation of Immigrants and Ethnic Minorities: Case Studies from France*, (JRC 51834 EN). Sevilla: IPTS. <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2460>

We used a mixed-methodology combining qualitative and quantitative analysis. Our research relies on a webmining system that allows to build different types of corpus: by semi-automatic websites crawling, automatic profiles storing, “success stories” extraction, marriage services inventory. As regards profiles storing (the main technological operation of this research) we developed some scripts to extract (“scrap”) targeted data that were put in large tables and analyzed statistically - for example, we stored 18 000 profiles of Muslima.com, about 1.2% of the entire website.

Age	Marital Status	Children	Height	Complexion	Manglik/KujaDosham	Special Case	Blood Group	Education
31	Never Married	No	5' 5"	Fair	Not applicable	None	-	Diploma - Management
42	Separated	No	5' 2"	Fair	Don't Know	None	-	Bachelors - Law
31	Never Married	No	5' 8"	Fair	Not applicable	None	-	Diploma - Shipping
30	Never Married	No	5' 5"	Fair	Don't Know	None	-	Bachelors - Commerce
28	Never Married	No	5' 5"	Fair	Don't Know	None	-	Masters - Commerce
47	Divorced	Yes. Not living together	5' 7"	Fair	Don't Know	None	A+	High school - Administrative
21	Never Married	No	5' 4"	Fair	Don't Know	None	-	Bachelors - Medicine
29	Never Married	No	5' 6"	Fair	Don't Know	None	O+	Masters - Science
52	Divorced	Yes. Living together	5' 4"	Fair	Don't Know	None	Don't Know	Diploma
35	Never Married	No	5' 4"	Fair	Don't Know	None	-	Masters - Nursing/ Health S
25	Never Married	No	5' 1"	Fair	Not applicable	None	-	Bachelors - Engineering/ Te
34	Divorced	Yes. Living together	5' 5"	Fair	No	None	A+	Associates degree - Financ
29	Never Married	No	5' 0"	Fair	Not applicable	None	-	Diploma - Commerce
32	Never Married	No	5' 8"	Fair	Not applicable	None	-	Diploma - Management
52	Never Married	No	4' 11"	Fair	Not applicable	None	-	Honours degree - Finance
32	Separated	Yes. Living together	5' 5"	Fair	Don't Know	None	-	Honours degree - Compute
40	Never Married	No	5' 5"	Fair	Don't Know	None	-	Bachelors - Medicine
44	Widowed	No	5' 9"	Fair	Not applicable	None	-	Diploma - Management
25	Never Married	No	5' 5"	Fair	Don't Know	None	Don't Know	Bachelors - Management
28	Never Married	No	5' 1"	Fair	Don't Know	None	AB+	Diploma - Administrative se
45	Divorced	Yes. Not living together	5' 1"	Fair	Yes	None	-	High school
44	Widowed	Yes. Living together	5' 4"	Fair	Don't Know	None	-	Bachelors - Nursing/ Health
35	Never Married	No	5' 0"	Fair	Don't Know	None	-	Honours degree - Science
21	Never Married	No	6' 11"	Fair	Don't Know	None	O+	Trade school - Arts
33	Never Married	No	4' 10"	Fair	Don't Know	None	-	Bachelors - Commerce
30	Divorced	No	5' 2"	Fair	Don't Know	None	-	Bachelors - Finance
45	Divorced	Yes. Living together	5' 0"	Fair	Don't Know	None	A+	Less than high school
24	Never Married	No	5' 4"	Fair	Don't Know	None	Don't Know	Bachelors - Arts
23	Separated	Yes. Living together	5' 6"	Fair	Don't Know	None	-	Diploma - Finance
23	Never Married	No	5' 2"	Fair	Don't Know	None	A+	Bachelors - Commerce
31	Never Married	No	5' 2"	Fair	Don't Know	None	-	Honours degree
30	Never Married	No	4' 10"	Fair	Don't Know	None	-	Diploma
33	Never Married	No	5' 0"	Fair	Not applicable	None	-	Bachelors
36	Never Married	No	5' 3"	Fair	Not applicable	None	-	Diploma - Management
34	Never Married	No	5' 0"	Fair	Don't Know	None	-	Bachelors
28	Never Married	No	5' 2"	Fair	Don't Know	None	-	High school - Finance
29	Divorced	No	5' 5"	Fair	Don't Know	None	O+	Masters - Science
34	Divorced	No	5' 3"	Fair	No	None	Don't Know	Doctorate - Science
40	Never Married	No	5' 7"	Fair	Not applicable	None	-	Honours degree - Managem
36	Never Married	No	5' 5"	Fair	Don't Know	None	Don't Know	Masters - Arts
42	Divorced	Yes. Living together	5' 2"	Fair	Don't Know	None	Don't Know	Diploma - Management
30	Never Married	No	5' 4"	Fair	Not applicable	None	-	Diploma - Finance
32	Divorced	No	5' 2"	Fair	Don't Know	None	B+	Undergraduate - Commerce
20	Divorced	No	5' 5"	Fair	Don't Know	None	-	Less than high school
31	Never Married	No	5' 5"	Fair	Don't Know	None	Don't Know	Masters - Computers/ IT
37	Never Married	No	5' 0"	Fair	Don't Know	None	-	Bachelors - Fine Arts
45	Divorced	Yes. Not living together	4' 11"	Fair	Not applicable	None	-	Diploma - Administrative Man

*Excerpts of Shaadi profiles (Indian women in the United States)*

## 2. An Economy of Ethnic Profiling

The matrimonial web of migrants (now MWM) (as “love web” in general) is located at the crossroad of an economy of participation and an economy of services. It combines the participation (users’ interactions) of customer networks with dating/matrimonial services thanks to relational technologies, and especially user profiling technologies. The commercialization of profiles is not merely a counterpart of the services offered (as it is the case in social network sites): in MWM, the users pay to be seen and to see the others “candidates”.

Dating websites work on the principle of membership. Different levels of subscriptions are generally available. "Paying more" means (at least it is the commercial argument) maximizing the probabilities of finding a soulmate. Indeed, it means to escape from the profile limits by multiplying the modalities of self-disclosure and communication: adding photos and videos to the profile, writing a free text "personality profile", communicating with instant messenger. The economy of profiling relies at the same time on the access to profiles and on the "exit" from them towards (hopefully!) emailing and instant messaging outside the website, phone calling and finally meeting in the flesh. In each Cupid Media website, a range of modes of memberships are proposed: standard, gold, platinum (metaphor of the credit card).

The crucial question raised by the MWM is the following one: Is not profiling there an ethnic profiling carried out by the users themselves? Does MWM promote forms of ethnicization?


The Australian company Cupid Media provides instruments of profiles databases management declined for different national or ethnic community: BlackCupid.com, BrazilCupid.com, ChinesLoveLinks.com, etc. These communities are conceived as "niche" or "market". Cupid Media is:

a digital media and internet information services company that operates innovative, database driven interactive dating sites focused on niche markets based on ethnicity, religion, physical appearance, sexual preference or special interests. Cupid Media is a market leader in many of its chosen markets and has over eight million customers in the USA, Canada, Europe, Asia, Africa, Latin America, Australia and the Pacific.<sup>2</sup>

However, this ethnicisation is inseparable from a radical standardisation. Indeed, the different websites offer the same structure (menu, research forms, etc.), the same profile categories (gender, nationality, ethnicity, profession. etc.), the same means of research and "matching", etc. In other words, ethnic/cultural differences are blurred. The division by community is not commanded by particular needs and actual differences but concentrated in the websites' names. Finally, standardisation also concerns the very process and steps of love encounter: Cupid Media websites are explicitly dedicated to "dating", that is to a culturally located – in the English-speaking world - practice.

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<sup>2</sup> See <http://www.cupidmedia.com/>, Last visit: September 07, 2009




**Member Overview**

**English Translation:**  
Mosiem young, .....qui loves Allah and his prophète.....

**Original French:**  
jeune musulmane , .....qui adore Allah et son prophète.....

Gender:	Female
Age:	23
Marital Status:	Single
Has Children:	No
Lives in:	Kenitra, Gharb-Chrarda-Beni Hssen, Morocco
Nationality:	Morocco
Appearance:	Attractive
Height:	168 cm (5 ft 6 in)
Weight:	57 Kg (126 lb)
Hair Color:	Black
Eye Color:	Brown
Ethnicity:	Arab (Middle Eastern)
Religion:	Islam - Sunni
Star Sign:	Aquarius
Education:	Bachelors degree
Occupation:	étudiante/sociologue
Languages spoken:	Arabic
English Ability:	Some
Smoking:	No
Relocate:	Maybe
Last active:	23-Mar-09

**A profile on [www.muslima.com](http://www.muslima.com)**



**Member Overview**

**English Translation:**  
good wave, dependable, amusing and above all I seek a person with serious intentions

**Original Spanish:**  
buena onda, confiable, divertida y sobre todo busco a una persona con intenciones serias

Gender:	Female
Age:	23
Marital Status:	Divorced
Has Children:	Yes
Lives in:	Valle Hermoso, Tamaulipas, Mexico
Nationality:	Mexico
Appearance:	Attractive
Height:	173 cm (5 ft 8 in)
Weight:	54 Kg (119 lb)
Hair Color:	Brown
Eye Color:	Black
Ethnicity:	Hispanic
Religion:	Christian - Catholic
Star Sign:	Pisces
Education:	Vocational college
Occupation:	estudiante
Languages spoken:	Spanish
English Ability:	None
Spanish Ability:	Very Good
Smoking:	No
Drinking:	Occasionally
Relocate:	Maybe
Last active:	21-Mar-09

**A profile on [www.mexicancupid.com](http://www.mexicancupid.com)**

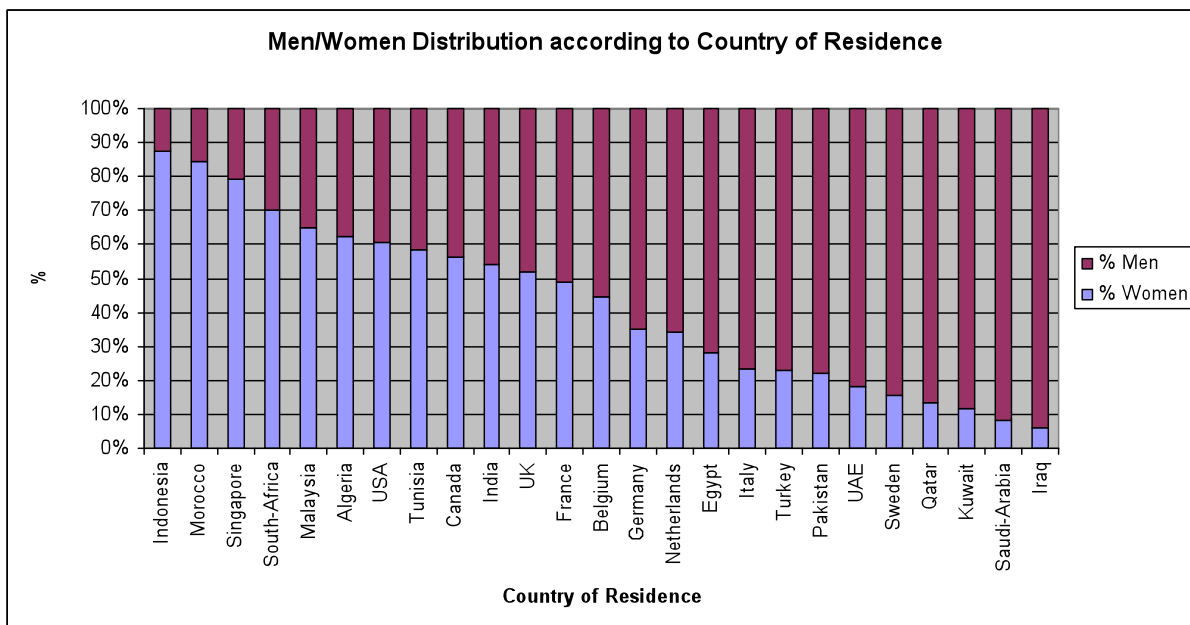
Web mediated marriage among the Indian diaspora(s) unveils a very distinct use of ethnicity. Conversely to Cupid Media, the Indian matrimonial web builds on the Indian culture specificities by offering a very subtle profiles discretization. Shaadi's profiles contain 40 fields of self-description and 20 fields of (ideal) partner description. "Matching" is therefore very complex, being based on profession, locations (country of birth, of education, of residence, etc.), ethnicity (community, subcommunity), language, diet, values, etc. Shaadi intends to replicate online the Indian social world. ICT allows a certain computing of marriage

which may contribute to the perpetuation of the arranged marriage tradition. Shaadi is diffusing an Indo-centric culture among Indian diasporas. In addition, in Shaadi, the economy of profiling absorbs the “traditional” economy of marriage/wedding services. People Group – the company which owns Shaadi – offers websites dedicated to Indian marriage news, legal help, migrations advices (ShaadiTimes), Indian astrology – checking of the bride and groom astrologic compatibility - (AstroLife), etc.

Finally, an economy of ethnic profiling is also at work in the field of international marriage, and especially in East-South/West-North unions. This business relies on women' e-mail addresses selling. It is not a new phenomenon; it is already known under the name of mail order brides. Nevertheless, the web is a crucial growth vector for this economy thanks to the creation of huge profiles databases (called “women files”), of catalogues available through multicriteria research interfaces. The ethnic category “eastern woman” informs not only the actors' discourses but also the very websites' structure which relies on categorization and research criteria according to “ethnic” type. In Eurochallenges, the two criteria available on the homepage are the age and the “world region”. A French woman of Russian origin will be classified in Russian nationals.

### 3. Gender and Migrations

Although in Cupid Media’s websites ethnicisation means at the same time the blurring of differences, some particularities emerge from the point of view of content (that is to say of users and their profiles) and especially as regards the distribution of gender. Here below is a graphic representing the distribution of men and women according to residence countries on Muslima.com:





In broad outline, in Asian countries (Indonesia, Malaysia, Singapore) as well as in North Africa, women are in strong majority; in emigration/host countries (UK, France, Belgium, etc.), there is more or less an equilibrium; in the middle east (Saudi-Arabia, Iraq, etc.), men are in strong majority. Similar observations can be made as regards the relations between gender and nationality.

In “international marriage”, the gender distribution is even more significant. Cupid Media's line includes websites dedicated to inter-community dating like InternationalCupid.com, AsianEuro.com, RussianEuro.com, etc. Nevertheless, inter-community dating does not take place only on these websites. It occurs on some so-called intra-community websites, allowing a circulation despite (and through) the community division. Indeed, some communities accept and even favour the presence of “strangers” in such a way that ethnic and cultural differences become an affinity criterion and may even ensure a website success. This inter-community circulation is not generalized (and usually only men “circulate”): it follows the rules of an “international distribution of gender”.

On Filipinaheart.com, the gendered distribution of ethnicity and nationality is obvious. In the United States, 89.9% of women are Filipinas whereas 86.2% of men are Americans (from the ethnic point of view, only 6.9% of American men are “Asians”). In France, 87% of women are Filipinas and 90.4% of men are French (only 5.1% of them are “Asians”). We also created a “fake” woman profile on MexicanCupid.com: she was 23 years old, lived in Puebla, and was single without children<sup>3</sup>. Among the 171 men who - in the space of three weeks - declared their interest, almost 70% were Mexican nationals and 20% were American nationals. As regards ethnicity, 25% were “Caucasian”. Concerning residence country, 63% lived in Mexico and 33% lived in the United States. These figures reveal (and the emails we received proved it) that numerous Mexican men living in the US are looking online for a Mexican soulmate living in Mexico. Different phenomena take place on MexicanCupid.com: intra-community/intra-national dating; intra-community/international dating involving both the home country and the host countries (or even only host countries); inter-community (first of all Mexican-American) dating also entailing migrations.

#### **4. Desire for migration**

The language of displacement and moving is at the heart of interactions on Cupid Media's websites. Here are some examples from MexicanCupid:

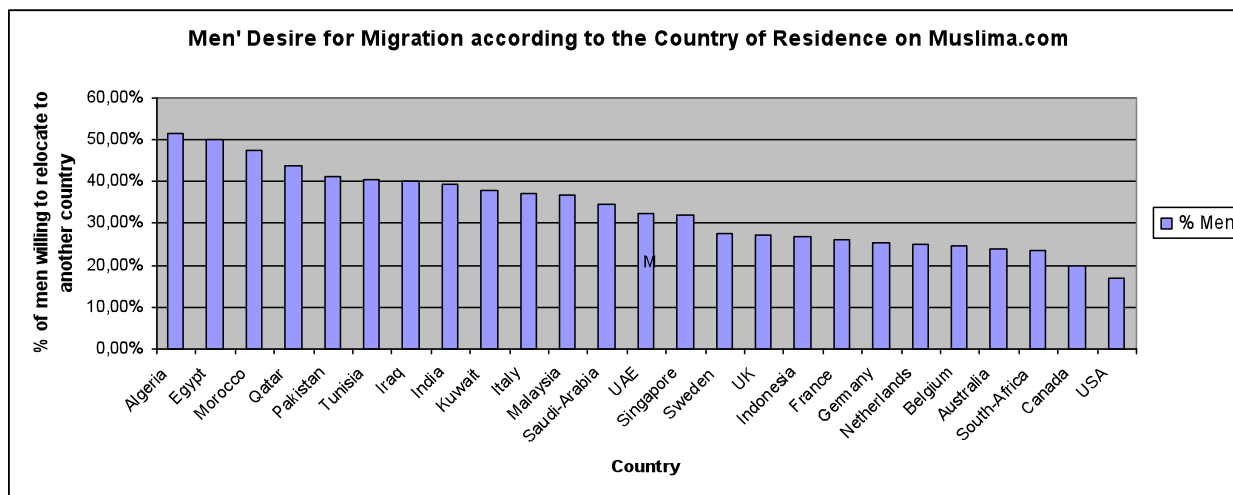
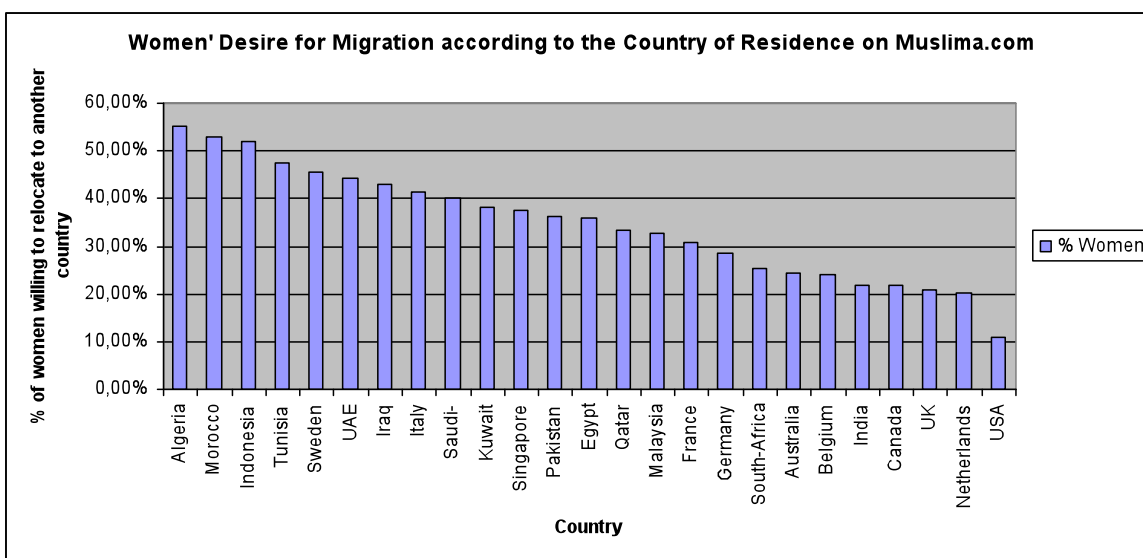
« I want to come to meet you... if you are interested. I can relocate to Mexico or sponsor you to come to the United States once we know each other better »

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<sup>3</sup> We wanted to know which kind of persons – nationality, ethnicity, residence country – would be interested by our fake profile. For deontological reasons, we did not engage the conversation: we did not answer to e-mails and only analyze them as well as the interested candidates' profiles.

“I know that you could answer that distance is a problem (...) but there is no limit for love”

The issue of migrations is essential in Cupid Media. When registering on any of Cupid Media's websites, the user is asked if he/she “wants to relocate to another country” (he/she can answers “yes”, “no” or “maybe”). Let us have a look to the following data extracted from Muslima.com, showing respectively the desire of Muslim women and men to relocate according to their residence country:



In broad outline, a quite high proportion of Muslims – men and women – living in the home countries would like to migrate, whereas Muslims already living in host countries want to stay there. Some most counter-intuitive observations can be done: men and women living in Italy are prone to relocate; women living in India and men living in Indonesia do not want that much to migrate. As a conclusion, we can assume that Muslima may be an instrument in a migratory project.

The triplet of gender, nationality and mobility is nowhere more effective than in the domain of “international marriage”. We created a fake woman profile on RussianEuro.com (belonging to Cupid Media's websites line): she was 24 years old, divorced without children. Among the 227 men who (in the space of three weeks) declared their interest, 16.4% were American, 13.6% were French, 9.6% were Italian, 7.9% were Dutch, 5.7% were German, 5.7% were British and 3.9% were Turkish. Neither Russian nor Eastern Europe nationals in general contacted us. Here again migrations are a crucial issue, as testified by the following e-mails we received:

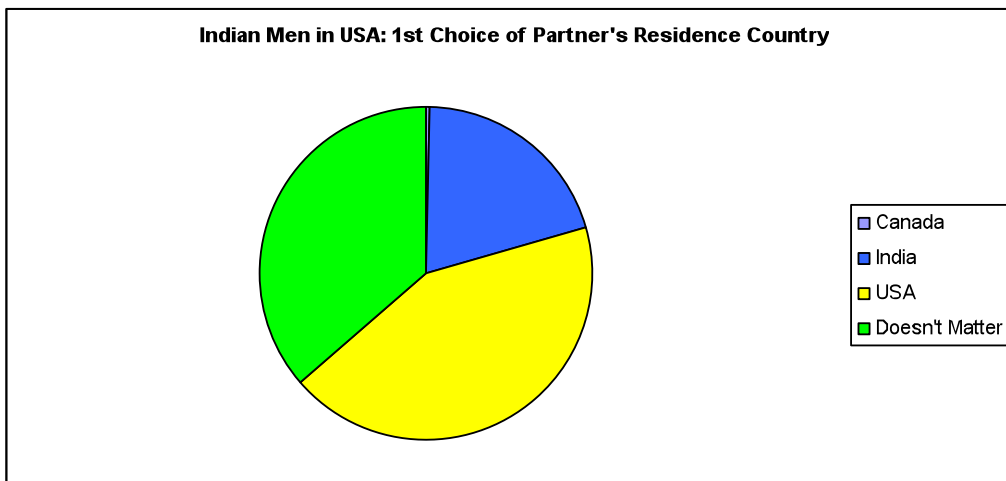
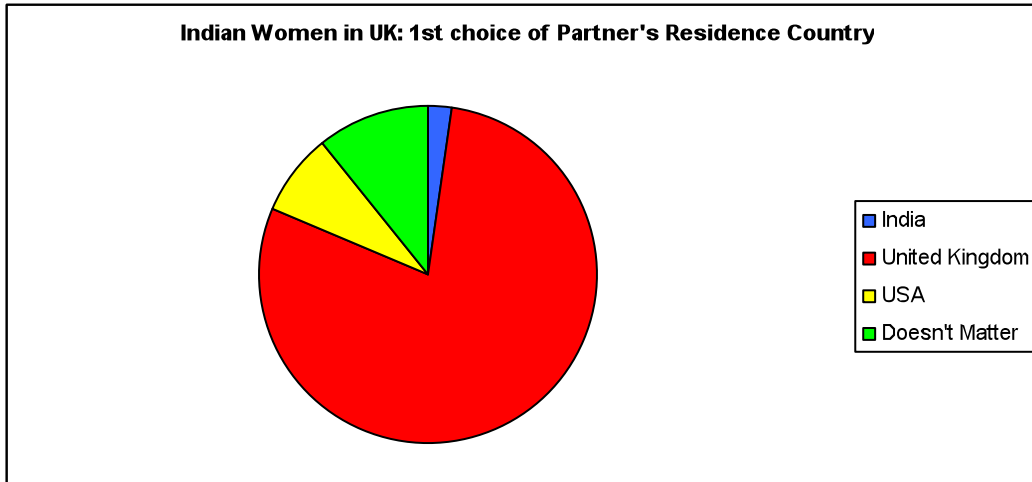
“As regard the woman I want: I want her to want to live in Egypt”

“I saw your profile; but can you come to Italy during holidays in order to get acquainted with each other?”

“I am a professor at Bari university in Italy, but I often travel around the world for scientific reasons. So maybe we would be able to meet”.

However, in the “international marriage” business, displacement is not only the end term of the transaction. It is present from the very beginning of the soul mate finding process. Indeed, the romantic travel (the men candidate going overseas to meet his potential future partner, or better partners) is a crucial source of income for the matrimonial agencies. Looking at a profile is never sufficient; the profile calls for its own overcoming. Profiling and mobility are the two sides of the same coin.

Finally, in Indian marriage, issues of migrations are also very important. Shaadi is the place of an informal politics of “chosen migrations” (to refer to the present French migration policy) which ignores the official corridors and are auto-regulated and “spontaneous”. Nevertheless, Shaadi can not be conceived as a migration “facilitator”. The following data are based on the extraction of 4 500 men profiles and the same number of women profiles. They show the members' first choice of partner's residence country (two examples are provided: women living in UK and men living in USA).



In broad outline, we observed that 1) Indian migrants men often look for a soul mate living in India (20.4% in the US and 10.4% in United Kingdom); 2) United States is an attractive partner's country of residence whatever is the candidate's country of residence. By way of conclusion, Shaadi reveals (more than it makes possible) the Indian "chosen migration".

## 5. Doing ethnic business otherwise

At the beginning of our research, we conceived of the MWM as a form of ethnic business. Is MWM an ethnic business? The concept of "ethnic business" (or "ethnic entrepreneurship") has been first developed in the eighties in the United States (Light et al, 2000). In France, Emmanuel Ma Mung defined it as « the activity carried out by persons who use and rely on networks of ethnic solidarity" in terms of funding, supplying and sometimes patronage" (Ma Mung, 1992). Thus, ethnic business relies on pre-existing networks; it activates these networks.

Let us take the example of a traditional ethnic business relocated on the web: the North-African wedding services providers: negafa (dresser), henna make-up, jewellery, halal caterer, etc. Displaying their offers on the web means for services providers possessing a “show window”, being visible for a pre-existing network of potential consumers. In addition, the services providers call for web developers or use advertisement publishing systems dedicated to North-African celebrations. The two main ones in France are Weboriental and Orientement. The function played by these companies is not only to provide a technological help, but they also offer catalogues of service providers, directories of commercial actors. In other words, they provide spaces for the ethnic niche of North-African wedding. These spaces may be compared to ethnic enclaves. Therefore, online services providers also rely on professional ethnic networks.

To sum up, in this ethnic business, the market is potential whereas the network is actual. In MWM, both the market and the network are potential: “doing business” and “doing network” identify. Indeed MWM aims to make non-linked people “to get it touch”. It aims to create actual networks from mere lists of candidates. This is a new form of ethnic business. Ethnic profiling is a condition of such a networking inasmuch as it ensures – at least formally or a priori – the potential network’s coherence and homogeneity. “Doing network” means “ethnicising”. Finally, MWM does not rely any more on “ethnic enclaves”; mobility and migrations are not the “past” of a settlement that allows ethnic business to develop. Migrations are now part of the very business. “Doing network” moving, navigating, migrating.

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# Sex, Crash and Rock'n'Roll – Or Strategies For Acquiring a Virtual Extension

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## Abstract

*With the rise of the online culture of blogs, profiles, live webcasting and web video a new social development came to existence: a culture of exposure that spans all the aspects of human life ultimately using as its trump card human sexuality. This intense presentation of the self via electronic circuitry may be a cry for connectivity. It also may be viewed as a challenge thrown at the machine by the biological beings. The vastness and the disembodied agency of the Web are sublime. One may wonder how could we ever incorporate it as our extension. The director, David Cronenberg, addressed the question of humans fusing with their technology in an attempt to map out the psychology of this coming together. His model may be useful in conceptualizing our relationship to the Web. In the impulse to claim the new virtual territory, humans crash into the Web with their amplified representations.*

## 1. From Comfort to Amplification

Technology seems to serve not only as means to human comfort but, in effect, as a way to amplify human existence. This byproduct of human efforts to make their life easier and their work more efficient may be the most important effect of technology on our emotions. Be it modes of transportation, entertainment or kitchen appliances, machines help us be more than we are. They enhance and amplify our existence and provide us with sensations unattainable before. Take for example the exhilarating feeling that overcomes a person in a beautiful sports car reaching dizzying speeds on a highway, or the excitement of a plane take off or touchdown. For those that don't like to expose their body to a possibility of a machine malfunction or an accident all those thrills and more is available in their home via the television, video games or the Internet. We can experience intense emotions with a minimal effort on our part thanks to the technical advances.

It is only natural that with the arrival of a new technology such as the Internet people found a way to use it as their own amplifier. This is, I believe, the case with the different modes of presentation of the self on the Web. The organization of the display is an interesting phenomenon that corresponds with the degree to which humans are still a little shy and not fully initiated into the possibilities of the medium. Blog and profile sites usually follow the format of a listing. One enumerates one's interests, friends, photos, videos, experiences and personal histories as though filling out a job application. In fact, in some cases while retaining its semi-social characteristic, that's exactly what these profiles are. Even more randomly organized blog and video sites have a very clearly delineated format into which one plots the data. The fill-in the blank nature of this presentation speaks to our need for instruction and solicitation. Once invited though many feel the freedom to express themselves beyond the boundaries that exist in the physical pedestrian life.



The result is a display of that, which the individuals deem most interesting, attractive and intense about them. From sports and pet tricks captured on video through displays of erudition on blogs and chats, to presentation of sexual talents and the eroticized body – it all has its place on the Web. When everything else fails, one can always turn the camera on to continuously film oneself and channel the intensity through sheer duration. When it comes to the Internet show and tell, we are outperforming each other. But who is it that we are trying to impress? The official understanding is that we are reaching out to each other. But can we talk about actual connection when the interface that we are building to supposedly facilitate this connectivity is exaggerated, a bit doctored, missing details that one chooses to hide or otherwise completely made up. We can still communicate perfectly well when it comes to technical information or perhaps schedules, which is enormously useful nevertheless the truthful portrayal of the self on the Internet is highly problematic. The human representations that populate the Internet are not a transposition of the true self open for frank exchange with another human being. Rather, they serve as shields and partial unveilings communicating first and foremost an intensity. In using the Internet we amplify ourselves.

## **2. Intensity As a Solution**

The whole world around us has grown faster and louder. Extreme experiences not only became increasingly accessible but they invade our privacy and impose the outside on us. The electronic technology is all-pervasive and serves as the permeable cell wall between the private and public. The mechanically advanced machines such as cars, trains and airplanes amplify our experience of space and provide avatars for our grandiose self-perception. Confronted with that intensity we throw everything that we've got back at the circuit. Demonstrations of extreme physical and psychological behavior seem to be the only way humans are able to respond. In thus created atmosphere of permissiveness, in an effort to keep up, we are willing to show off on the screen more than in real life. It almost seems appropriate that way. Additionally, this barrage of intense self-exposure lends a human element to otherwise technological landscape. Perhaps it is our main mode of operation when it comes to dealing with a foreign territory: fetishize it and populate it with self. The culture of desire already lends itself perfectly to the way we understand and use cars. The Internet is no different.

Human aggressiveness in inserting themselves into the technologically created world echoes in the films of David Cronenberg. In *Crash*, the protagonists' sexual drive is amplified by the machine and its merging with the human body. Existing next to a car is not enough anymore. The relationship requires actual fusion of the two bodies as in the sexual act. The gender and sexual orientation of the people don't matter anymore. In the highly sexualized atmosphere of a car crash everyone feels charged with libidinal energy and none discriminates in his or her choices of partners. In *Crash* the new desire-organizing axis runs between humans and machines. In this relationship, humans provide the desire and machines deliver the intensity unattainable to unaided human body. While damaging to the human flesh this relation is pursued

and executed by humans. One of the characters, Vaughan, describes their exploits as “positive psychopathology” and deems it necessary for the emergence of a new kind of flesh. In essence, the act is creative. In a view of this logic, the machine is a passive tool enabling the human to undergo a transformation. Thus, despite our first gut reaction, it is the human that takes on the role of the aggressor.

The human transformation, I believe, takes place on the emotional level. In a car crash the human is inspired to feel more vividly. My conviction runs contrary to Jean Baudrillard's interpretation of the human-machine relationship in *Crash*. According to him, the car crash sterilizes the humans of any emotion reducing the sexual act to pure mechanics.

*“No affect behind all that, no psychology, no flux or desire, no libido or death drive. Naturally, death is implicated in an unlimited exploration of the possible violence done to the body, but this is never, as in sadism or masochism, with an express and perverse aim of violence, a distortion of meaning and of sex (in relation to what?). No repressed unconscious (affects or representations), except in a second reading that would still reinject a forced meaning, based on the psychoanalytic model”.*<sup>1</sup>

Contrary to this statement I believe that human affect is precisely the force responsible for the crash. While the machine may appear to possess agency, it is the human driven by desire that enacts his/her will. The crash is an appropriate coming together since it is infused with human emotional charge. It is exciting. The meaning, based on the psychoanalytic model is not forced because it emerges spontaneously in the human psyche.

This bold fetishistic attitude and desire for excitement is present on the Web. They found their particular location on the social networking sites as expressed in the culture of exposure. The representation of oneself becomes an object of desire with an unclear audience. The profiles and Internet personas are the striking versions of ourselves. Humans show off “the best of” themselves in accordance with one's understanding of what's attractive in one's milieu. This shout for attention finds its culmination in virtual emergence of profiles and videos blatantly implying sexuality. Who exactly is the audience of all these efforts?

The display of mating colors is not an actual solicitation for a real person on the other side of the circuit. As I believe, the exchange of true information is not the goal of this behavior. The phenomenon is two fold. On one hand, we throw forth that which is most potent in our psyche, our libido, in order to match the surrounding intensity. A sort of equalization of electric charges takes place: the slick virtual sublime is confronted with sticky human chemistry. On the other hand, eroticism and intimacy may be the most immediate strategies through which we arrive at forming a union between the human and the technological Other. Perhaps, we can think and realize this merging together only through intensity equal to human sexuality. We are crashing our intimacy into the circuitry much like the protagonist of *Crash* throw their bodies against the car's metallic surface.

### 3. Ware It, Love It, Make It Yours

It's not a secret that humans tend to fall in love with their technology and the Web is no different. After all, it plays the role of the Other so well. The visual slickness, conceptual logic and the otherworldly dimension it inhabits are seductive. They promise a possibility of transformation, a different way of existence in a parallel world. In a sense, we put on our Web representations like a costume, which like an elaborate outfit is meant to inspire desire. Sandy Stone in her essay *Split Subjects, Not Atoms; or, How I Fell in Love with My Prosthesis* gives an interesting insight into human relationship with technology: *"With the development of industrial design in consort with strategies of commodification, as meaning moved to the surface of things, machines themselves became spectacle much as the Elizabethan body had been, taking on the qualities of desire that formerly sought their meaning and purpose in body surface – but meaning decoupled in complex and troubling ways from the shape that function had dictated. This worked to create a dual desire, at once for the hypertactility of the smooth surface and also for the mysterious hidden organs that nestled beneath".*<sup>2</sup>

We accessorize with our technology and "ware" it like fashion. The screen of the computer adds the extra shine to our photos and videos and offers an opportunity to edit our representations. The web makes us feel sexy by lending us its surface. Through the Web we gain an interface to our physical selves, which not only matches up with what we expect of ourselves but also carries on beyond into the world of fantasy. Just like our technology we too can hide our inner workings, our organs beneath the surface of the screen. If you were a car, what car would you be? On the Web, this becomes a serious question, which opens the door to embodiments of different attitudes no matter how extreme.

The result of our crash with the Web is a spectacle. Our new interface augments our appearance and psychology. In an effort to match the sublime intensity of the virtual world, we invent ever more slick and extreme versions of ourselves and throw them on the Web. In this love affair, the axis of sensual tension runs between the humans and the virtual world. We have the sense of being seduced and we respond with seduction. The cavalcade of kaleidoscopic representations mounts a barricade on which we confront the Other – our technology. A question arises. Is the non-conscious, sublimely non-locational entity that is the Web capable of responding to our oppressive sentiment? Are we, after all, alone in our obsession? In the mean time, our strategy seems to be clear. Only extreme measures can result in successful appropriation of the virtual territory as a functional extension.

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## Facebook Chronicles

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### **Abstract**

*Long ago I struggled discreetly to clarify the strong passion new media inspires me; unlike some critics I do believe it humanizes us. As a proof of that, I have been writing a journal that reunites the strong emotions and great discoveries that have happened to me through my experiences in facebook. So this exercise is merely an example of creative writing that has no other purpose than to make a subjective account of the new use of social sites.*

### **Facebook Chronicles**

Long ago I struggled discreetly to clarify the strong passion new media inspires me; unlike some critics I do believe it humanizes us. As a proof of that, I **have been writing a journal** that reunites the strong emotions and great discoveries that have happened to me through my experiences in facebook.

The first friend that I found was from my childhood, I never thought it could trigger such physically powerful emotions, specially because he was nothing more than a forgotten memory lost in the cave of my subconscious.

Immediately I fell into Alice's hole and went back to my old house, as a matter of fact today someone asked for my phone number and I gave them the number 595-3405, which is absurd because now I live in Toluca and you can't even dial the numbers that way. All this information had been lost and suddenly rescued from the dust.

It is miraculous to gather friends from the past and update our lives periodically, as if this site were a real time machine. Our roads have separated, but we always do everything to get together and have a cup of coffee. I cannot blame facebook because we did not do that before, but I can tell you that thanks to eah of my contacts' photos every morning new faces awake to share their story.

Every morning I get up happy and excited, ready to log on, see who is there to chat and organize our next gathering. Faces lost in time have become a way to rediscover myself, to collect the lost memories that embellish the walls of my life.

It is difficult to explain this idea, but I think that sometimes we are becoming objects. It is undeniable that there is an objective dimension to our lives and a material need for food and protection every day. Lately, and from my lectures about facebook, I discover that I am simply a face, more specifically an image, rather expensive, and there is a group of people competing to buy my photo. I still do not understand what this application called Owned! means and that has me very worried. I do not like to be auctioned. One day I belong to a blonde woman with a crazy face and another one of my students wants to control me! I'm not a doll to play with. Sure, my mood could be worse if I suddenly discovered that my price has gone down or no one is bidding for me.

The thin line between the thing and the being is unstable. Things condition us and we do the same to them, one can enter a stranger's house walk through their things like a reader deciphering the past, present, and even the most hidden desires of its inhabitant.

Objects map out our needs, passions and our ideology, roads preparing to take off our future projects. Things are doubles of our love, we store them in a purse or under our pillow, and things are also the souvenirs of nostalgia and the roots of our history.

The ties that bind us to our things are stronger than we imagine. On the one hand I'm being auctioned in a game, but on the other many people in my country are being kidnapped in an infamous trade, where the symbol par excellence: money, which once brought peace, is worth more to some people than life itself. The tool being used for this purpose is facebook. Criminals are using it to gather information and details about possible victims.

Things are full of meaning, omens or live there now encapsulated. And I wonder who inhabits this apparatus by which I write, and has become a part of me more important than many people I know. It keeps my most intimate secrets; it's my main work tool, it's my contact with people from faraway

lands, the trunk of memories that hosts the images and movies of my life. It is also the extension of my memory; it saves my favorite music and ideas, those that I am afraid to forget. I also know that through the network that connects me lives an infallible tracker that in seconds can locate my physical whereabouts. I know it is intrusive and that the web pages I visit, can figure out my preference and relationships, hobbies and habits. The web is like money, an ambiguous symbol, a form of contact and trade, a means to make war or to launch peace proposals.

Borges said "Mirrors are abominable because they multiply the number of men". What would he think today if he knew facebook? I would speculate that he would believe it to be an aberration even worse than any reflection, because its power of proliferation makes it a cubic mirror and its handling capacity turns it into a corruptible portrait able to project what the subject wants to feed contemplative as its shadow.

The famous witch in Snow White, with a different attitude, loved her mirror until it betrayed her; it returned an undesirable image, it was incapable of lying. Like any bad lover, it could not silence the supremacy in youth and beauty of the witch's stepdaughter. It would have saved many troubles if it had only answered once again: "You, my love, you, are among all the most beautiful!"

The witch's mirror operates, in general, as her faithful servant, helping her rediscover her beauty every day, it also worked as a radar to find lost friends or stepdaughters, no doubt a precursor of the GPS. It was even a faithful companion with whom to talk in times of loneliness.

Another friend of mirrors, the oldest of all is the catatonic Narcissus, who spent his life watching his image in the waters of a still lake that just as quiet, benevolent, returned him the photograph of his virtues. He, the germ of later characters, is presented as the icon of vanity in Oscar Wilde's fable Dorian Grey, whom in sinful excesses sells his soul to the devil to keep his lush appearance forever.

Facebook (and all its similars) are the new mirror and window of us mortals, a sort of synopsis of our "perfect story" a Narcissus's pond to remodel our ordinary life.

We can summarize the profiles of facebook users into the following categories:

The popular, which are competing to acquire millions of friends; the member of the happy family that exhibits a perfect life; the traveler who wants to show he has money to trot around the globe.

The party guy, that collects pictures of himself in festive activities, including inconvenient situations.

The big shot, that believes he could be targeted and kidnapped, so he never uploads photos, not even in his profile.

The Forever young, who seems to be shouting: "Look at me, I'm in perfect shape despite all these years."

The spider, that evidently lives on the web: he thinks "reality is an excuse to feed my facebook".

Finally, all categories are variations of nostalgia. The perfect answer to a society that is afraid of the present, a community that searches the past and plans a future that always promises more. It is the graceful hobby of a busy society that looks in the new venue, at least in a gallery nobler than life, one that allows you to edit your memories, collect friends and share your album maybe to obtain a bit of admiration from others. Showing us also that our life in pictures looks good after all and allows us to recover that moment we were unable to savor because our sight and soul were focused on the following day.

Ray Bradbury wrote in the late seventies a series of essays in his book *Yestermorrow* (notice the absence of the present tense in his title), in which he speculated that the concept of shopping malls would be an area of social gathering as the Mexican plazas. Visionary, as usual, he announced that, instead of the usual catwalk around a kiosk in search of new friends or Sunday walks in the parks to share time with the family, modern society would walk between windows with the same stale purposes. Covering our faces with makeup and wearing the best smile possible we go to the mall expecting to provoke envy and desire. What is the distance between these physical spaces and virtual spaces?

"There are two ways of looking at life: one is to believe that there are no miracles, the other, believes that everything is a miracle." That is the sentence I just read on a billboard while walking to an appointment. The phrase caught me just when I think that facebook has helped me find my old friends and lost years of my childhood and that, is certainly a miracle! But it is not the cliché miracle



that we Mexicans use when we bump into someone at the grocery store and say: *¡Qué milagro!* An old *milagro* that we keep as a piece of gum lost in our pocket. Rescuing a true miracle is to understand that it is an achievement worthy of true Saints, the lurking surprise that suddenly jumps out one day and makes you remember a pleasant song you once knew.

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# The Three-Face Mirror

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## Abstract

*“The three-face mirror” Is the first part of an exploration of “the being” in “real” and “virtual” life from a phenomenological perspective through interactive art installations and web based projects. In this particular mirror you can see yourself in “real reality” and “virtual reality” simultaneously it’s a installation to discover reality or virtuality remains “noematic” an act of perception is an attempt to create an “apoche” phenomena, a self transition from a world of “willing” to a world of “representation” in order to create self consciousness and perceive yourself as an entity of its own that goes further than physical representation.*

## 1. Conceptualization

In “the real” I am a human being, I am complex configuration of atoms that allow other humans to recognize me through their senses.

Then I am conscious of my own existence and others are too, they are aware of their own existence as well as they realize I exist, therefore we can interact with each other.

Cyberspace is an alternative space within a net in which you can interact with other users, it is called **Virtual reality**, inside this non-flesh space you can do whatever you want, be whoever you want.

Such is the case of “Second Life” ([www.secondlife.com](http://www.secondlife.com)) a Cyber world in which you can be somebody else and live a completely different life, go to places, meet cyber-people, make business and have your own cyber-land, you can have a job and go to a party and even have cyber-sex.

On virtual environments we see each other through screens, we are a profile; it could be according to your real you or it could be a lot different from who you truly are, we are an avatar beautifully designed, we choose carefully our nose, eyes, ears, mouth, hair style and the rest of our virtual body out of a list of different options, it could look a lot like you or not, it could look better than you really are, you could change your gender, sometimes we are a profile picture, the best we got, doesn’t matter if it’s an old one or recent, it might be a picture with a nice Photoshop work with some crazy filter, it’s yourself with your sweet hart, with your best mate, your dog or your family, it is you “simpsonized” or south park style, sometimes we are our favourite movie or videogame character.

Many people have found their virtual reality more satisfactory than their real one. Howard Reinhold argues that in Cyberspace we cannot see one another; it makes any physical difference

such as race, gender, age, nationality or a physical handicap blur the barrier of prejudice and stereotypes. Meanwhile other practitioners appoint different issues concerning cyber-identity, Stephen Frosh argues: "If the reality of modernity is one of fragmentation and the dissolution of the self, the belief of the integrity of the personal self ideological. Imaginary, Fantastic... whatever illusion we might choose to employ to make ourselves to feel better, they remain illusory, deceptive and false". Carlo Mongardini appoints the consequences of identity inconsistencies "The individual becomes a mere fraction of himself" (*Robins, 1996*). Vivian Sobchack quoted by Andrew Calcutt dissected the "cyber culturists" enthusiasm for "getting rid of the meat" and detected disdain for the "imperfect human body" and estrangement from the imperfect world": This is alienation raised to the level of ecstasies: "A being out of its place". It is also a political fantasy of escape.

As we can see there are many issues to be considered about virtual reality and cyber identity but the thing is that it's already here and for better or worse we are embracing it as part of our life. "Digital media have become pervasive. Most of ordinary tasks in every day life, from leisure to work, are mediated through electronic devices and their respective digital content." (*Reyes-García, 2010*) "As we incorporate each new invention into our daily life, we must accelerate our ability to process new thoughts and ideas" (*Rushkoff, 1997*) he affirms that new media and technology are part of the new step on evolution and the new generations that have born and grown with them are more likely to understand it and we must learn from them how to use it.

Whether it is an organic or an inorganic reality we need to be perceptible to others we also need some environment / interface to interact within. Whether I am a biological individual that interacts and defines reality with what I touch, see, smell, taste and hear or if I chat, blog, tweet, facebook or so, we are shaped by bunch of atoms in space or a bunch of pixels on a screen. In cyborg culture it is said that we will be able to recreate our own body, move our brains into a robotic avatar or maybe they won't even have to transplant your brain, maybe they will only have to move your mind, transfer all your memories thoughts and feelings into a one hundred terabytes hard disk or even better to a complete different creature as the recent James Cameron's film "*avatar*" suggest. So we may say we are humans, cyborgs, or avatars either way we still have a set of criteria that defines us, we still believe in a god or not, we become addicts, we love and hate, in either world isn't it the same mind? Aren't we our own consciousness itself?

## **2. The installation**

The artwork presented as part of this research is a collaborative project developed with students of the BA in Digital Art and Animation from Tecnológico de Monterrey Campus Toluca. These are Genesaret Merari Miranda Correa, Jessaí Ignacio Maya González, Andrea Ruiz Carvajal, and David Salinas Garfias.

This is an interactive piece in which the user is invited to approach the installation where a computer is set and two web-cams are installed. As the user gets closer he/she starts to realize that the projected shapes are images reacting to her own movement (the images are becoming the user itself). On the one side a set of molecules is shown to represent our organic self (mirror number one) on the second screen, the projection is constituted by a pixilated image representing the virtual reality of the user (mirror number two). The realization that it is ourselves shown in the images is the third "face of the mirror".

Technically speaking, the main engine of the artwork was developed with Processing. A couple of Apple iMac computers support the projection and an additional video camera is employed for pixilating the visitor's image.

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# Gate Peepin'\*

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## Abstract

*Through an introduction to the critical design intervention, Gate Peepin', this shortpaper aims to open up for a discussion on means of regulation and the user's position within Web 2.0 service platforms. The paper argues that examining Terms of Service documents is an important part of understanding key elements of the online servicescape, which increasingly is becoming an integrated part of our everyday life. The countless click-and-agree contracts populating the Web are veritable gate keepers of the communities making up today's net culture, such regulations are, although materially detached from the structures that they govern, powerful means of controlling content on the Net. Gate Peepin' aims at bringing back the performativity of the regulations of the services within their own execution. Not as an instrumental tool, but as an artistic intervention altering the browsing experience of different social network platforms according to their Terms of Service, and thus turning both the user generated content and the Terms of Services upside down.*

*Keywords: "Regulation", "Net.Art - then and now", "Web 2.0", "users"*

## 1. Introduction

With "Television Delivers People" [[1973]], Richard Serra and Charlotte Fay Schoolman pointed out the scope of socio-economic-control inherent in the mass media technology of television: TV appeared as a service delivered to its viewers, however, Serra and Schoolman indicated that the TV rather served as an instrumental tool of control, passivating the viewers and turning them into commodities of the entertainment industry. Created in the beginning of the 1970s, the work reflected a general concern regarding centralized mass media where artist groups such as TVTV, Ant Farm, Videofreex etc. along with grassroots movements pleaded for a decentralized mediascape in line with the visions formulated by Brecht already in the early 1930s [[Brecht, 1932]].

Today's networked internet culture with its active users capable of creating, publishing and sharing content with million of other users through online networked services, seems to be a fulfillment of the visions of a decentralized mediascape advocated for in the 1970s, where, people getting access to transmitting their own content was, and still is, identical to a general notion of democratic media. However, with a background in my own work "Gate Peepin'" [[Hilfling, 2008]] I wish to open up for a discussion on means of regulation and the users position within such networked media culture.

With Web 2.0 online services new kinds of private-public spaces has appeared. Spaces which are supposedly created and controlled by its users, at least as suggested by the companies with

names like 'YouTube' or 'Myspace' or tag-lines such as 'Second Life – Your World, Your imagination'. But also at the same time, if turning to the contracts agreed upon in order to access the services, spaces where the means of control are non-transparent and users' rights are non-existing. The information architectures provide possibilities for users to communicate and publish content, but the ToS contracts governing the spaces, offers the service providers an influential control over user activities. Gate Peepin' is a critical design intervention attempting to point out the relationship between such virtual (read: not code based) laws and user-generated content within online Web 2.0 service platforms.

## **2. A Typology of TOS**

Most often the Terms of Services are presented to the user as a click-and-agree-contract just before entering or registering with a service for the first time. If you disagree with parts of the terms you'll have to disagree with all by clicking disagree at the end of the document. This in return means that you are not allowed to become a user or enter the service at all. In other cases simply browsing a service requires an agreement with the terms, as Myspace's ToS indicates: if you are a visitor and don't agree with the ToS you “must discontinue [your] use of the MySpace Services immediately“ even though such premises has actually never been presented to the 'visitor'.

Additionally, the style of the documents are also characterized by a high degree of inaccessibility. The length may vary, but often the texts are documents of between 4,410 [[Beebo]] and 7,555 [[Second Life]] words with a dense style of 'legalise' – i.e. difficult juridical language. Surprisingly though, one might occasionally encounter unexpected touches of informality as for instance in paragraph 12 of 14 of YouTube's 4,113 word contract, where the text suddenly is being addressed directly to children with the following suggestion: “If you are under 13 years of age, then please do not use the YouTube Website. There are lots of other great web sites for you. Talk to your parents about what sites are appropriate for you.” Such a phrase seems almost parodic, since due to the difficult language and the numerous appearances of ToS on the Net, even most grown ups seem not to read or understand the ToS [[Turow, 2003, p 3]]. Examining the ToS, however, is an important part of understanding key elements of the online servicescape, which increasingly is becoming an integrated part of our everyday life web culture [[1]].

ToS are part of contract law, which is private law. We generally know contracts from renting a bike, acquiring property or an employment contract. Usually the involved parties negotiate premises for exchange of services, goods or employment and write their agreements into a



legally binding contract. But ToS within online service platforms are non-negotiable and appears as a top-down click'n'agree or browsewrap demand from the service provider to the user. The contracts set the premises for the regulations of a service, thus defining activities allowed, users rights or the responsibility of the company etc. However, in general it is foremost the service provider's rights which are being formulated. Such rights might include: the right to terminate or delete users account "anytime for any reason or no reason" [[Second Life, sec. 2.6]], the right to "analyze your application, content, and data for any purpose" [[Facebook, sec. 9.17]], the right to "track, record, observe or follow" users' behavior within the service [[Second Life, sec. 6.2]], the right "throughout the universe, [... to] use, reproduce, modify, adapt, publish, broadcast, license, perform, post, sell, translate, create derivative works from and distribute [...the users content in] any medium, now known or hereafter devised" [[Sony Online Entertainment sec. IV C]], as well as the right to inhibit free speech [[Facebook, sec. 3.7 & 5.2]]. At the same time the contracts limit the service provider's responsibility of, not only, actions or content published by other users [[hi5, sec. 11]], but also property damages or personal injuries [[YouTube, sec. 9]].

Each service platform defines its own regulative framework and whether you are the registered user, who closed her eyes in agreement, or an incidental visitor, to whom the terms never was directly presented, browsing the Web has become a continuous travel between territories of different regulations. Thus, with the right to expel users without reason, to intrude on privacy, surveille users activities and limit 'free speech' by deleting users content as they seem fit, the service providers are, through the ToS, in a powerful position capable of regulating activities and content throughout the internet service-scape.

### **3. Co{-de|-ntract}-ntent**

The relation between the content of the net and means of controlling the net, was often reflected upon in early net-art-projects regarding the performativity of the code itself. For instance in JODI's [www.jodi.org](http://www.jodi.org) [[1995]]. The work is a website that when viewed through the browser window displays an abstract, blinking pattern of assumingly meaningless characters or pieces of code, but when examining the source-code of the site, which is usually abstract, it turns out to display ascii-pictures of technical drawings of a bomb. Other examples are experimental browsers, such as for example Mark Napier's Potatoland Shredder [[1998]], which deconstructs a browser's usual interpretation of Html code, thus transforming the web-experience accordingly or Alexei Shulgin's Form Art [[1997]], where a standard web component for submitting information, the form, is iterated and playfully recontextualized as a labyrinthic experience of an ongoing form-game.

With the introduction of Web 2.0 service platforms, however, experimenting with elements and components of the structure of the different service platforms doesn't confuse, deconstruct or necessarily reveal the structure it is a part of, but is, on the contrary, warmly welcomed by the service providers as added bonus value to the services [[O'Reilly, 2005, p. 3]]. Hence, the companies are making it easy for its users to build small applications customizing their in-service environment or providing APIs allowing for mashup-cross-overs between different services. Nevertheless, at the same time seemingly harmless artistic projects, which however obviously is subtracting value from the services as for instance Seppukkoo [[Les Liens Invisibles, 2009]] or Suicide Machine [[Moddr\_, 2009]], which both help users to remove themselves from their services, or Google Will Eat Itself [[Übermorgen.com, 2005]], a clever recursive set-up, where money earned from Google ads are used to buy up stocks in Google, are immediately acted upon and threatened with Cease and Desist letters from the lawyers of the service providers.

Terms of Services are not an immanent performative control as in the code of an information architecture, which directly executes the possibilities of behavior within the system (i. e. a reply-field allows you to comment on a site, a link gives you access to another page, password-field limits access etc). Instead, although powerful, ToS may be thought of as a 'virtual' regulation, superimposed on but also materially detached from the structures that it governs, since the ToS doesn't reveal themselves through the use of the service and most users are not aware of the content of the contract they agree to.

#### **4. Gate peepin'**

As was the case with the early net-art projects, Gate Peepin' aims to bring back the performativity of the regulation of the service within its own execution. But now in a changed net-climate by forcing the 'virtual' regulative framework to interfere with the web-space that it governs.

The project is an open source browser extension that compares the Terms of Service document with the text content of a site and re-edits the site by inserting phrases from the regulations directly into the content. The process is triggered by matching 'common words' present in both the Terms of Service document and in the user generated content. Thus by re-editing the user generated content Gate Peepin' alters the browsing experience of the different Web 2.0-platforms according to the terms regulating the services. This leads to rather absurd meanings and phrases, where both the user generated content and the terms are turned upside down. As in this example, where the well known Christmas song, "Santa Claus is coming to town", transforms into an ironic indicator of Yahoo's regulations:

“He SEES you with notices, including those regarding changes to the TOS, including by but not limited to email, regular mail, SMS, MMS, text message, postings on the Yahoo when you're sleeping. He KNOWS when you're awake. He KNOWS if you've been copied in a way that constitutes copyright infringement, or your intellectual property rights have been otherwise violated bad or good. So be good for MAKING CLAIMS OF COPYRIGHT OR INTELLECTUAL PROPERTY INFRINGEMENT Yahoo goodness sake.” [[2]]

## **5. Conclusion**

Brecht's visions seem to have been fulfilled. However, paradoxically enough, in a media landscape made up of corporate internet service providers with venture entrepreneurs capitalizing on so called architectures of participation. The term Web 2.0 was coined by Tim O'Reilly in 2004 as a concept for a smart bussines model harnessing users participation [[O'Reilly, 2005, pp. 1-2]]. The idea was to create platforms for the users to engage and communicate, and thus, making the users provided the actual value of the sites, the content.

In this way the model of Web 2.0 succeeded in reappropriating the 'user as producer' by turning her into a 'user as producer as consumer' of a given service. With other words they managed to create a model of, not television, but online social networks, delivering people. In this context the Terms of Service documents play a crucial part. On one hand they are the powerful documents, which grant the companies necessary rights to be able to capitalize from users through advertising, data monitoring or directly of users' content. On the other hand, the ToS do also reveal cracks in what otherwise seems to be a brisk, nearly self-regulating business model.

Web 2.0 is based on smooth, non-offensive communication: Users may post content, but they can never escape the sleek, framework set up by the company, not only in the corporate graphic profiles, but also through the code of conduct, which is an essential part of most ToS. However as Chantal Mouffe and Ernesto Laclau have noted, communication is not just about consensus. In their notion of radical democracy, conflicts, on the contrary, are seen as an inevitable part of society - they cannot be avoided and shouldn't be attempted to be so either [[Mouffe, 2002, p. 189]]. Notwithstanding, the service providers of Web 2.0 seem to be incapable of coping with such sociality within their frictionless framework (although they try through biopolitical governance such as users 'flagging' each others). Thus, from the censoring of artistic nudity [[Hawk, 2009]] to political satire [[Perez, 2009]], in order to harness the users' content and communication, the companies are continuously busy regulating and limiting the very same content and

communication.

As Web 2.0 reveals its limitations in dealing with sociality, the ToS contracts reveal further inadequateness regarding governing or commodifying sociality. In frenzy statements were rights over user content are granted to the service provider 'throughout the universe' [[Sony Online Entertainment sec. IV C]] or cruel formulations, entitling the service provider rights to delete user accounts 'for any reason or no reason' [[Second Life, sec. 2.6]] along with gentle advices to consult a physician if the user experience dizziness, altered visions or convulsion while using the service [[Yahoo/Flickr, sec. 19 e]] or kind suggestions for children to talk with their parents [[YouTube, sec. 12]] , the companies' appear almost schizophrenic in their struggles to demarcate and perhaps even understand the scope and limits of their own platforms. As found footage literature, the ToS contracts, thus, may be read as depictions of the incompleteness inherent in the very same structures, which are being regulated.

Serra and Schoolman's "Television Delivering People", is a bold statement depicting the essence of the medium being criticized. As passive viewers we lean back and watch, as cheezy easy listening muzak accompanies a scrolling text, conveying our submissiveness to the entertainment industry. A work of Online Social Networks Delivering People, however, is more complex and would include the revelation of both ferocious, opaque means of control commodifying users communication as well as the inadequacy of such systems of control, due to the unstable aspects of communication. Gate Peepin' is an attempt to execute such ambiguities by interweaving terms and content and thus turning the meaning of both upside down. Its essence might be summarized in this example: A caption to an image on Flickr read "My first computer – So happy!" [[3]], but with Gate Peepin' enabled it was transformed into: "My first computer code, files or programs designed to interrupt, destroy or limit the functionality of any computer software or hardware or telecommunications equipment; disrupt the normal flow of dialogue – So happy!"

## 6. Endnotes

- \* Gate Peepin' is an open source browser extension developed during my residency at the Netherlands Media Art Institute, Sept-Dec 2008.
- 1 "Facebook has more than 350 million active users" (Facebook Statistics, company figures)
- 2 Browsing Flickr with Gate Peepin' enabled: Original text: "He SEES you when you're sleeping. He KNOWS when you're awake. He KNOWS if you've been bad or good. So be good for goodness sake." Retrieved November 27, 2009 from <http://www.flickr.com/photos/sis/73674558/>
- 3 Retrieved and transformed November 27, 2009 from <http://www.flickr.com/photos/mylor/127047506/>

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## Curating After The Net

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From the issue of control in cybernetic systems to the issue of control in organized networks, curating is inextricably bound to the system that it seeks to organize and make sense of.

The current rise of popularity of social technologies such as wikis, lists, blogs, and online social networking platforms further emphasizes this issue and the renewed importance of systems thinking for curating. It demonstrates how nothing happens in isolation, how everything is interlinked as part of a larger structure that is thoroughly networked, and most importantly how complex components in interaction work together within wider systems. (1) Organisation, or what Ludwig von Bertalanffy calls 'developmental organisation', is key to this. (2) A better understanding of the dynamics and structures of systems helps to establish some of the working principles for curating in open socio-technological systems, and curating itself as an open socio-technological system. This takes its cue from systems theory and second-order cybernetics, to understand some of the nodes of power and forms of control therein, as well as the importance of feedback loops and self-organisation. This reflects the fact that the network itself is adaptive and somewhat resistant to control, despite all attempts to exert control over it.

Describing curating in terms of relational and adaptive processes implies a state in which the curatorial system continuously interacts with the socio-technological environment: the system is opened up to the communicative processes of producers/users and to the divergent exchanges that take place and that disrupt established social relations of production and distribution. Thus, and importantly for an understanding of the power relations involved, the wider system opens up curating to dynamic possibilities and transformations beyond the usual institutional model (analogous to the model of production associated with the industrial factory/gallery) into the context of networks (and what is referred to as the social factory/gallery). (3)

Importantly, it is a network of users that constitutes the system, along with the technological apparatus in its broadest sense. An emphasis on the user in the curatorial system is particularly significant in this context, as it is the user who dynamically determines its openness. Thus, it is also important to note that the openness of such systems may vary considerably. Similarly, Katherine N. Hayles points out that systems may well be 'technologically open' but 'informationally closed'. By describing systems as informationally closed, she is drawing upon an understanding of second-order cybernetics in which systems respond to stimuli of their own internal self-organisation. To further explain, an understanding of systems is determined by their

internal self-organisation, and the informational feedback loops 'no longer function to connect a system to its environment' and 'no information crosses the boundary separating the system from its environment'. (4) Her suggestion, and one followed in this text, is to shift attention to emergent transformative processes that can offer an understanding of systems as 'informationally open' and that are in keeping with more current interpretations of socio-technological networks.

## 1. Before The Net

The particular historical reference in this connection is second-order cybernetics, originating from the work of Heinz von Foerster (1979), that acknowledges factors of noise and entropy (disorder and deterioration), self-referential relationships, and crucially the possibility of transformation in systems – the relationship of the observer/curator and the observed/curated. This approach accounts for the fact that those who engage in any investigation are simultaneously part of the system that they investigate.

This sense of reflexivity is what Hayles describes as 'turning a system's rules back on itself so as to cause it to engage in more complex behaviour' to emphasise 'change over constancy' and 'complexity over predictability'. (5) In this approach, the importance of self-referentiality, self-organisation and the subject-object problem lies at the core of the concern. (6) Hayles explains that from such a perspective nothing is outside the system, including the cyberneticians themselves: 'In a sense, autopoiesis turns the cybernetic paradigm inside out. Its central premise - that systems are informationally closed – radically alters the idea of the informational feedback loop, for the loop no longer functions to connect a system to its environment. In the autopoietic view, no information crosses the boundary separating the system from its environment.' (7) She suggests a shift of attention from autopoietic (informationally-closed) feedback loops to emergent (informationally-open) transformative processes that can be usefully applied to a more contemporary interpretation of socio-technological networks.

The idea of a system defined in this way is important for developing an understanding of curating that involves information systems. Indeed, building upon these earlier references, there are a number of more current attempts to rework second-order cybernetics for the context of networks. For instance, in Ned Rossiter's 2006 book *Organised Networks*, the notion of feedback loops is taken to be 'homologous with the concept of "organisational closure" that acknowledges the role of the observer in the functioning of the systems, and hence introduced the concept of reflexivity where the observer constitutes a node within the scene or operation of observation'. (8). Rossiter notes that this is somewhat similar to a 'post-structuralist critique of the subject and the concern with questioning the primacy of the individual and the autonomy of the subject/consciousness



from the environment in which it is embedded'. (9) Consequently, this indicates the porous nature of 'boundaries' of systems that are understood to be constructed, and therefore open to change. This allows Rossiter to 'recast the limits of organisational closure' and to account for self-generating, distributed informational systems in the organisation of institutional forms.

## **2. The Net**

The term Internet in its technical sense refers to a physical infrastructure connecting computers, literally a network of routers that connect computers and that communicate with each other through protocols. In a broader sense, the Net is an entire 'online universe' including computers, routers, optical cables, and the WWW, what Tiziana Terranova defines as 'a combination of technological system (technological diagram) and its relation to the cultural and political formations'. In this sense, it can be referred to as a 'network of networks' (or an 'internetwork'); as a 'topological formation that presents insights into the dynamics underlying the formation of a global network culture'. In this sense, the Internet goes beyond its definition as a technical system and extends to be considered analogously to wider networks as: 'an abstract technical diagram implying a very specific production of space – a tendency to understand space (space over networks) in terms of biophysical properties of open systems. The Internet thus expresses open system spatiality and becomes a general figure for the process driving the globalisation of culture and communication at large' (10).

The distinction made between the Internet as a description of a specific technical system and the network as a dynamic topological formation is an important one in that it describes 'the formation of a single yet multidimensional information milieu connecting various communication channels and diverse modes of circulation, a meshwork'. (11) It allows the deployment of the description of Internet architecture (based on principles of universal address space, a layered and modular structure, the distributed circulation of data packets and various technical protocols that regulate its operation) to a much more abstract analysis of contemporary forms and structures of power in the network society.

To further speculate in this way, the technical and topological architecture of the Internet also requires more description. Albert-László Barabási characterises the Internet as an example of a scale-free network topology based on what he describes as a power laws degree distribution that operates preferential attachment. In this model, nodes have only a few links and are held together in a network by a few highly connected hubs (nodes-connectors with an anomalously large number of links). The emergence of hubs is based on 'preferential attachment' driven by the product of the node's 'fitness' and the number of links it maintains. (12) A good example of this

principle is the Web, where hubs are websites such as Google, Yahoo, Amazon, etc. Thus, in this highly competitive environment, hubs represent the 'highly important organising principle that governs network evolution'. (13) Furthermore, this model is characterised by continuous growth and evolution, both of which are effected by, in the case of the Web: 'internal links, rewiring, removal of nodes and links, ageing, nonlinear effects, thus changing the number and size of the hubs'. Analysing the structure of the Web in this way according to Barabási and others, demolishes the myth of the web as a democratic model and a truly egalitarian space. From this perspective the Google search engine becomes a clear manifestation of a mechanism of control as it works its way through the vastness of online information at once filtering and controlling access to certain kinds of information over others.

Much in the same way, Internet protocols can be considered in terms of mechanisms of control. The protocol development of the Internet, that started with the TCP/IP set of protocols (Transmission Control Protocol / Internet Protocol), operate as a distributed management system coding packets of information, documents and communications. Computers in a network agree technical standards of action such that the protocol governs usage at the level of code: 'protocol is a technique for achieving voluntary regulation within a contingent environment' as Alexander Galloway puts it. (14) What he calls 'voluntary regulation' is a particularly successful and subtle mode of social control, and this makes a particularly good example of how power is exercised within distributed networks.

The example of ICANN (The Internet Corporation for Assigned Names and Numbers) is a case in point, reflecting both horizontal and vertical 'axis of influence'. Established as a non-profit corporation (by the US government in 1998) it manages the allocation of IP address, assignment of protocol parameter, domain name and root server (in conjunction with GNSO - Generic Name Supporting Organization). The IP addresses are allocated by means of a central authority that franchises them to interested organisations while at the same time the US government continues to act as an overseeing body putting into question the independence and neutrality of ICANN. Thus, the Internet is not an embodiment of the utopian vision of democracy but instead demonstrates a certain centralization of power in a few large hubs and the allocation of addresses, but at the same time it is also a collection of various networks. All the same, as Barabási explains, it consists of independent but interlinked networks that coexist and operate on the basis of distributed decisions - anyone can add nodes and links with no need for permission from the central authority (except for domain name assigning) and thus extend the network. (15) In this sense the Internet is structurally closer to an ecosystem that constantly evolves but at the same time is locally regulated – subject to control and feedback.

Responding to the particularities of this architecture, Galloway explores how control is organized and expressed in distributed network forms. Drawing together the structural form of a distributed network, the technology of a networked computer, and the organisational principle of management characteristic to the Internet, he claims that all three factors come together in the term *protocol* to define a new apparatus of control that 'problematizes issues of connectivity, collectivity and participation'. He explains: [...] a network is not simply a free-for-all of information "out there", nor is it a dystopia of databanks owned by corporations. [...] On the one hand, TCP/IP (Transmission Control Protocol / Internet Protocol) enables the Internet to create horizontal distributions of information from one computer to another. On the other, the DNS (Domain Name System) vertically stratifies that horizontal logic through a set of regulatory bodies that manage Internet addresses and names. Understanding these two dynamics in the Internet means understanding the essential ambivalence in the way that power functions in control society.' (16)

Indeed, control is no longer centralised or even decentralised any more and is not hierarchical but still exists in a distributed form of organisation. This Galloway identifies a contradiction between two opposing tendencies: one that radically distributes control into autonomous locales and at the same time another that focuses control into rigidly defined hierarchies: 'The Internet is not simply "open" or "closed" but above all the form that is modulated. [...] Information does flow, but it does so in a highly regulated manner. [...] Viewed as a whole, protocol is a distributed management system that allows control to exist within a heterogeneous material milieu'. And in this way: 'power relations are being transformed in a way that is resonant with the flexibility and constraints of information technology (17).

### **3. The Net After the Net**

This position reflects a broader understanding of a new exercise of power and control in open systems. What is required is a negotiation of the relation between structure and dynamics.

The new emergent institutional form envisaged by Rossiter is the 'organized network', reflexive of 'relational processes' and inherently driven by the 'elemental force of self-organisation'. It thus presents a challenge to the existing systems of governance and representational structures. In contrast, older forms of 'networked organisation' are characterised as hierarchical and centralising, despite claiming otherwise. The new institutional form is characterised as horizontal, collaborative and distributed in character, offering a distinct social dynamic and transformational potential. The distinction is summarised as follows: 'The network models of sociality made possible by information and communication technologies have resulted in new forms of social-

technical systems, or what I am calling emergent institutional forms of organised networks. While these networks can be called institutional forms in so far as they have a capacity to organise social relations, they are radically dissimilar to the moribund technics of modern institutional forms – or ‘networked organisations’ – such as government, unions, and firms whose logic of organisation is predicated on vertical integration and representative tenets of liberal democracy. Such dynamics are profoundly unsuited to the collaborative and distributed culture of networks peculiar to digital communications media and their attendant socialities.’ (18)

In this way, the relation between structure and dynamics, control and collectivity can be negotiated if the technical and organisational infrastructure is better understood. Like Rossiter, who imagines new emergent institutional forms driven by the ‘elemental force of self-organisation’ is it possible to imagine new curatorial forms that better respond to the logic of social-technical networks and open systems; that are suited to the collaborative and distributed culture of networks, and that negotiate the relation between structure and dynamics.

This speculative thinking is not without its foundations. There have been a growing number of curatorial responses in this respect applying the open systems principles and utilising social technologies and networks. In this sense curating can be characterised as more open and distributed as a reflection of the organisation of the system of which it is part, and within which it unfolds. The recent proliferation of such curatorial work prompts the question of a pseudo-democratisation of curating on one hand, and reconfiguration of curatorial practice that challenges the defining role of institutions in the networked environment on the other. Certainly some of the premises of conventional curating are challenged, if not transformed *after the net*.

## Notes

1. Barabási's *Linked: The New Science of Networks*, p.7 and von Bertalanffy's *Robots, Men and Minds*, p. 69.
2. von Bertalanffy, p. 69.
3. The ‘social factory’ is a phrase used by the autonomists to describe production that is more distributed and communicative in character, and in this sense immaterial.
4. See Hayles's *How We Became Posthuman* (1999), p. 10-11.
5. Hayles (1994), p. 446.
6. The issue of reflexivity was developed in particular by Humberto Maturana and Francisco Varela in their work *Autopoiesis and Cognition: The Realisation of the Living* (1980) to suggest a view of the world as a set of ‘informationally closed systems’; that is systems determined by their internal self-organisation (reproducing the organisation that defines them as systems).
7. Hayles (1999), p. 10-11.
8. Rossiter (2006), p. 183.
9. Ibid.
10. Terranova (2004), p. 42.
11. Ibid. p. 41.
12. Barabási (2002), p. 96.
13. Ibid. p. 72.
14. Galloway (2004), p. 7.
15. Barabási (2002), p. 148.

16. Galloway (2004), p. xv.
17. Ibid. (2004), pp. xix, 7-8.
18. Rossiter (2006), p. 14.

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# The 14 Messages of New Media or Digital Media

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The material presented here is excerpted in part from my new book to be released in the summer of 2010 entitled *Understanding New Media: Extending Marshall McLuhan*

Greetings from Toronto where Harold Innis and Marshall McLuhan gave rise to media ecology the study of communications in which the impact of media independent of their content are analyzed and in which

## 1. The Medium is the Message

We will explore the 14 messages of the new media but first some: **McLuhan Quotes on new Media.**

"The new media are not bridges between man and nature; they are nature." (1969, 272)

"Today we are beginning to notice that the new media are not just mechanical gimmicks for creating worlds of illusion, but new languages with new and unique powers of expression." (1957, 272)

"A new medium is never an addition to an old one, nor does it leave the old one in peace. It never ceases to oppress the older media until it finds new shapes and positions for them." (1964, 174)

## 2. The 14 messages of New Media

The focus of this presentation is to identify the characteristics of the "new media" and contrast them with the electric mass media that McLuhan dealt with. According to McLuhan the medium is the message so we begin our analysis by identifying the characteristics or messages of the "new media", which will help us understand how they differ from electric mass media.

I actually began this exercise back in 1996 when I first identified the five messages of the Internet which subsequently appeared in the first edition of *The Sixth Language* in 2000 (Logan 2004b). Back then the notion of "new media" had not yet been formulated but already at that early stage in their development I identified the following five messages of the Internet:

1. two-way communication,
2. ease of access to and dissemination of information.

3. continuous learning,
4. alignment and integration, and
5. community.

Although one or two of these characteristics apply to electric mass media what is unique about the Internet is that all five of these characteristics apply and help define the impact of this medium. As it turns out all of these characteristics also apply to the general class of “new media” or digital media. Since formulating these five messages of the Internet my study of the “new media” revealed that there are also nine other additional properties or messages that characterizes the “new media”. They are:

6. portability and time flexibility (time shifting), which provide their users with freedom over space and time;
7. convergence of many different media so that they can carry out more than one function at a time and combine as is the case with the camera cell phone that operates as phone but can also take photos and transmit them;
8. interoperability without which convergence would not be possible;
9. aggregation of content and crowd sourcing, which is facilitated by digitization and convergence;
10. variety and choice to a much greater extent than the mass media that preceded them and hence the long tail phenomenon;
11. the closing of the gap between (or the convergence of) producers and consumers of media;
12. social collectivity and cooperation;
13. remix culture, which digitization facilitates; and
14. the transition from products to services.

### **3. Laws of Media**

One of the tools that we will use over and over again in our analysis of “new media” is McLuhan’s (1975) Laws of Media (LOM), which can be described as follows:

Every tool or medium **enhances** some human function,

**obsolesces** some other tool or medium,



**retrieves** something from the past, and pushed far enough

**reverses or flips** into a complementary form. (A38)

#### **Electric media:**

Electric media **enhanced mass communication**.

They **obsolesced** the printing press.

They **retrieved** oral culture.

And they **reversed** into interactive digital “new media.”

McLuhan’s book *Understanding Media*:

*Understanding Media* **enhances** our understanding of media.

It **obsolesces** media studies as a form of content analysis.

It **retrieves** rhetoric and grammar (the grammar of media).

And pushed far enough it **reverses** into media ecology and the study of the next generation of post-electric mass media, namely the “new media” that are interactive and digital.

#### **Digital “new media”:**

Digital “new media” **enhance** interactivity, access to information, and two-way communication.

They **obsolesce** mass media.

They **retrieve** community.

And pushed far enough it **reverses** into hyperreality.

#### **4. The Revival of Literacy with “New Media” and the Reversal of the Negative Effects of the Mass Media**

In UM McLuhan alerted us to the radical changes that were taking place in the transition from an era dominated by literacy and mechanical technologies to the era of electric media. The trends that he was observing alarmed him as he saw that television was having a negative impact on literacy. He wrote: “The electric technology is within the gates, and we are numb, deaf, blind and mute about its encounter with the Gutenberg technology (1964, 17).” Earlier in his career in the famous journal *Explorations* that he co-edited with Ted Carpenter he wrote:

It is the almost total coverage of the globe in time and space that has rendered the book an increasingly obsolete form of communication. The slow movement of the eye along lines of type, the slow procession of items organized by the mind to fit into these endless horizontal columns - these procedures can't stand up to the pressures of instantaneous coverage of the earth (McLuhan 1954).

Unfortunately he never lived long enough to see that this trend began to abate with the emergence of the Internet, email, text messaging and the World Wide Web, which unlike television, radio and the movies embrace the Gutenberg technology as its content.

While I agree with McLuhan that television posed a threat to literacy circa 1964, I do not believe that threat is as great today. I believe that TV still poses a threat to literacy and that for some children it is having an adverse effect on their ability to read and write. But in the 40 years since McLuhan first issued his alert about the dangers of television vis-à-vis literacy a new anti-biotic has been developed which counteracts the harmful effects of TV.

This antibiotic is nothing more than the interactive "new media" of personal computers, the Internet, email, text messaging and the World Wide Web. These media whose content is often text are the antidote to television's harmful effect on literacy.

Although much of the content of the "new media" is not text such as music or games the important point is that the amount of time that young people spend with text has increased compared with the previous era of mass media because of many of the forms of "new media" like the Web and email.

The only solution that McLuhan offered to the problem of TV for literacy, which I often heard him suggest, was "to pull the plug" (Logan and Waxman 1996). Not a very practical solution but the only one he could offer. I believe the solution is to provide the child with a rich environment for encountering those "new media" that are text-friendly like email, the Web and text messaging.

Children are finding their way back to Gutenberg but Gutenberg embedded in email or on the Web. Just as the content of the Gutenberg press was the written word, the content of the Web and email is the word-processed word, which operates on Gutenberg's movable type principle of writing with recycled fonts of the alphabet only in this case those fonts are not created by pouring hot lead into a mold but rather they are generated electronically in every style including classical Times New Roman, modern sans serif Helvetica and Verdana favored by many for online text.

When McLuhan first issued his dire warnings about the dangers of electrically configured media one of his main concerns was the speed at which information traveled. He talked of "the electric environment of instant circuitry (ibid., x)" and wrote "electric speed is bringing all social and

political function together in a sudden implosion that has heightened human awareness of responsibility to an intense degree (ibid., 20).”

His concern was that “the action and the reaction occur almost at the same time” so that we lose the detachment with the information we are dealing with and hence “the power to act without reacting (ibid.).” McLuhan believed that as a consequence we live mythically with electric media. “Myth is contraction or implosion of any power, and the instant speed of electricity confers the mythic dimension on ordinary industrial and social action today (ibid., 38-39).”

These concerns that McLuhan expressed over 40 years ago, I believe, have been somewhat blunted because with our computers and printers connected to the Net and the Web we are able to slow down the flow of the electric speed of information by looking at it on a printed page. This gives us the time to reflect on the meaning and significance of the text.

This is not to suggest that McLuhan’s thesis was not valid at the time he wrote it. He correctly described the information environment of his day, but now with the new ground of the widespread access to computing technologies including cheap and fast printers the figure of “the electric speed of information” changes.

We must keep in mind that at the time of the publication of UM that there was very little access to computers which is the anecdote to the speed up that electricity made inevitable. McLuhan died before the personal computer invaded the work place, the school and the home. In the spirit of his emphasis on the figure/ground relation we must re-evaluate what he had to say about the electric speed of information.

No medium has its meaning or existence alone, but only in constant interplay with other media (ibid., 39)

The significance of electrically configured information has therefore undergone a radical shift since the time McLuhan published UM with the emergence of personal computers, printers, the Net and the Web. In some ways we have the best of both the Gutenberg technology and the instant access to electric information. Books continue to pour off the world’s presses and we can print out information that comes to us by email or the Web.

## **5. New Media’s Intensification of Trends McLuhan Identified for Electric Media**

While some of McLuhan’s predictions about electric media have not panned out with the “new media” such as his forecast of the loss of literacy the overwhelming majority have held true and in fact are more true for “new media” than for electric mass media. Our involvement with each other has increased due to email, the Web and cell phones.

“Everybody in the world has to live in the utmost proximity created by our electric involvement in one another’s lives (ibid., 47).” In fact as a result of our digital involvement with each other due to the “new media” that utmost proximity has increased even more. We are literally breathing down each other’s necks!

One of the important trends that McLuhan identified with electric information was the flip from the centralized structures of the mechanical era to the decentralized ones with electricity.

Electricity does not centralize, but decentralizes. It is like the difference between a railway system and an electric grid system: the one requires railheads and big urban centers.

Electric power, equally available in the farmhouse and the Executive Suite, permits any place to be a center (ibid., 47).

This trend of decentralization intensified with the Internet, which itself operates on the principle of total decentralization. It was created so that the U.S. communication system could not be taken out by a nuclear attack. The power of decentralization whether it is an electronic communication system or a social organization is that the system is robust by virtue of its redundancy. With the Internet every place in the world is at the center of this network.

The Internet for example provides everybody with equal access to the world’s knowledge publicly available on the Web. Google has plans to make all the books at five major libraries at Oxford, Harvard, Univ. of Michigan, Stanford and the New York Public Library available to all the users of the Web. Here is a perfect example of the decentralization of knowledge and library resources made available by the World Wide Web. Another example is that of MIT (my alma mater I am proud to say) making its courseware freely available on the Web.

In *Take Today* McLuhan and Nevitt (1972, 4) suggested that “at electric speeds the consumer becomes producer as the public becomes participant role player”. This observation made in the mass media era intensifies with the emergence of “new media” (5.11). The Internet and the Web decentralizes the publication of cultural artifacts, where the term publication means to publicize or make public and is not restricted to duplication and distribution of print material by a “publisher.”

The users of “new media” are both consumers and producers. The open source movement and the Flickr, MySpace and YouTube experiences illustrate this point. This aspect of “new media” is extremely democratizing because it allows more people to share their ideas with others and to share that information, knowledge or artistic expression directly without having to deal with a gatekeeper who might censor their material or judge it by the gate keeper’s standards, which might not be the standard of the producer or the consumer of the cultural artifact.

People vote with their fingers as to whose material they want to read, watch or listen to. This is one sense in which the Net and Web duplicate the patterns of oral culture in that individuals in the society can communicate with each other directly and decide whose information they will pay attention to without the intervention of a gatekeeper.

With “new media” there is more airtime, in fact, there is an unlimited amount of airtime. This trend is reflected in the emergence of alternative sources of news in the form of blogs (44.2). The number of comic strips has exploded with the emergence of webcomics (Chapter 17). The Web allows authors and poets to publish their works and find their audience. The same applies to musicians, composers, and filmmakers. Painters, sculptors, potters, crafts people of all sorts do not need a physical gallery to display their works, they can create a virtual gallery on a Web site.

The Internet also allows the small entrepreneur to compete globally with transnational corporations by promoting its services and products through a Web site and, thereby, decentralizing and democratizing the economy.

McLuhan (1964, 57) made the point that electric media are extensions of our nervous system when he wrote:

Electromagnetic technology requires utter docility and quiescence of meditation such as befits an organism that now wears its brains outside its skull and its nerves outside its hide.

This observation, which McLuhan originally intended to describe electric mass media, is even more appropriate for digital media. Because I reach for the Web, Google and Wikipedia to access information that has slipped my mind to such an extent, I regard the dynamic trio of the Web, Google and Wikipedia as an extension of my mind, which I can access, with a few deft strokes of my fingertips.

McLuhan fervently believed that with electric media learning and the acquisition of knowledge would become the principal activities of humankind.

Under electric technology the entire business of man becomes learning and knowing. In terms of what we still consider an "economy" (the Greek word for a household), this means that all forms of employment become "paid learning," and all forms of wealth result from the movement of information. (ibid., 58).

One of the developments that lends credence to McLuhan's prediction and once again demonstrates the intensification of electric media effects with “new media” is the knowledge management movement in the business world, which only took off with the introduction of the

Internet and the Web into the business world starting in 1994 when Netscape released its browser for commercial use.

The thrust of knowledge management is to find ways in which knowledge can be shared among the stakeholders in an organization, which includes management, employees, customers and suppliers

The Web provides an excellent environment for knowledge sharing. The importance of knowledge sharing is that with computer technology and the Internet everyone now has access to information. It is only through the acquisition of knowledge that one can be competitive in today's business world. Knowledge is the ability to use information (contextualized data) to achieve one's objectives. The movement of information alone without the knowledge to exploit it will not create wealth on its own.

Another trend McLuhan identified with electrically transmitted information was that of the growth of interdisciplinarity, which has increased with the "new media" because of the way in which information from different disciplines are so easily linked through the use of hypertext and the Web.

Our new concern with education follows upon the changeover to an interrelation in knowledge, where before the separate subjects of the curriculum had stood apart from each other. Departmental sovereignties have melted away as rapidly as national sovereignties under conditions of electric speed (McLuhan 1964, 35-36).

The Internet and the World Wide Web have contributed to a further melting away of national boundaries because knowledge and information flows unimpeded across national and academic borders creating communities of interest and practice on a global level. The printing press gave rise to nationalism and nation states while the Internet is helping to create a world community. Not only is the UN and its work a sign of this but so too are other global initiatives like The World Bank, the IMF, the Hague War Crimes Tribunal, the Kyoto Accord, the World Health Organization, and the International Atomic Energy Agency.

McLuhan saw clearly that eventually electricity would lead to new media like the Internet and the World Wide Web as the following quote from UM indicates:

Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media (ibid., 3).

There is no doubt that with the “new media” that the “creative process of knowing” has become more “collectively and corporately extended to the whole of human society,” than it was when McLuhan wrote those words over 40 years ago.

## **6. Faster than the Speed of Light**

I have found the pattern of the intensification of electric media effects with the “new media” fascinating and looked for a possible explanation. I believe that the key that unlocks this mystery is the speed-up of information flow with “new media”. Before offering an explanation let us first look at the correlation McLuhan found between the speed-up of information flows and the impact of media. One of the constant themes in McLuhan’s understanding of media was that the speed-up of information flow changes the effects of media whether we are dealing with oral, written, print or electric media. Here are a few examples from UM and his famous Playboy interview (McLuhan 1969) grouped by media:

### Oral Media

The spoken word was the first technology by which man was able to let go of his environment in order to grasp it in a new way. Words are a kind of information retrieval that can range over the total environment and experience at high speed (McLuhan 1962, 57).

### Written Media

The medium of money or wheel or writing, or any other form of specialist speed up of exchange and information, will serve to fragment a tribal structure (McLuhan 1964, 24).

### Print Medium

By creating a speed of information movement unthinkable before printing, the Gutenberg revolution thus produced a new type of visual centralized national entity that was gradually merged with commercial expansion until Europe was a network of states. (McLuhan 1969)

Literate nationalism's tremendous speed-up of information movement accelerated the specialist function that was nurtured by phonetic literacy and nourished by Gutenberg, and rendered obsolete such generalist encyclopedic figures as Benvenuto Cellini, the goldsmith-*cum*-condottiere-*cum*-painter-*cum*-sculptor-*cum*-writer; it was the Renaissance that destroyed Renaissance Man (ibid.).

## Movies

One effect of the static photo had been to suppress the conspicuous consumption of the rich, but the effect of the speed-up of the photo had been to provide fantasy riches for the poor of the entire globe . (McLuhan 1964, 38).

## Electric Media

With the new media, however, it is also possible to store and to translate everything; and, as for speed, that is no problem. No further acceleration is possible this side of the light barrier (ibid., 58).

Now as McLuhan with his uncanny feeling for modern physics points out nothing can travel faster than light and therefore the electric flow of information at the speed of light is the ultimate velocity for the flow of information. But in fact “new media” moves information faster than electric mass media because of hypertext, search engines and the convergence of media and our ability to move from one document to another or one medium to another with the click of a mouse.

One can access movies, music on the Web in an instant and chose exactly what wants to consume. Finding information with a search engine literally takes a fraction of a section. Whereas in the past a correspondence took days with the postal system, now with email there is much less waiting time.

This instantaneous flow of information does not violate Einstein’s Special Theory of Relativity. What is speeded up is not the flow of information but rather our ability to access it within the framework of the “new media.” And this I believe is the explanation for the intensification with “new media” of some of the effects we saw with electric mass media. I do not offer this suggestion as a confirmed result but rather as a scientific hypothesis worthy of further study so as to try to either falsify it or confirm it.





# Ewriting Theories and Practices

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## Synthetic propositions

- *Ewriting (electronic writing) is a developing field of inquiry generating theories, practices and computer applications that evolve and continuously redefine our perspective on writing.*
- *The whole idea of the computer as a writing tool is now associated with telecommunication. Since writing through the computer cannot be isolated from networking, it is actually telecomputing that will provide for ewriting technology.*
- *Ewriting software design must provide for the writers' simultaneous or alternate interaction with text-processing applications, autonomous machine-writing, distant or local co-writers and large data structures.*
- *The new ewriting technologies would allow for optional or automatic data interaction, text filtering, textual de-construction and re-construction leading to hybrid man-machine dialogues in writing.*
- *As we approach the concept of ewriting, as we understand the potential for techno-induced writing tools, we will inevitably face the prospect of our human identities being transformed as consequence of hybrid human-machine co-evolution.*
- *The human mind, as an authorial entity, is acquiring a different nature. The mind becomes translocal, as writing fills cyberspace, as networks connect in authorial nodes.*
- *We are becoming trans-individuals as co-writing develops into a widespread practice, enabling human thought to be almost instantaneously disseminated and eventually aggregated through automated machine agents.*

- *Although the human mind will no longer be located at the symbolic center of creation and invention, it will be being endowed with highly superior abilities, preparing our species for the large-scale global challenges we will have to face in the immediate future.*
- *Our reconception of the text as a matrix of interrelations, as a mind tool, as an indispensable social instrument, will lead us to conceive a new horizon for human thought influxes.*
- *In the ewriting environment, our words, phrases, paragraphs will instantaneously reverberate through massive data structures that will provide us with immediate feedback. Intelligent agents will interact with our propositions to pose us questions, alter our syntaxes and present complementary data.*
- *Ewriting tools will challenge deep-rooted cultural habits at the base of our language and thought processes. An intense focus on language will trigger in-depth research into new forms of textual processing.*
- *Ewriting reconceives individual authorship into a multi-dividual, socio-machinic, planetwide process. Once ewriting becomes widespread and acknowledged in theory and practices, collective web-based writing, machine-assisted and machine-generated authorship will be investigated as human-developmental tools.*
- *Since ewriting develops through a series of successive interactions, it re-defines traditional authorship. Theory is called upon the task to provide an overall view of how ewriting can be described and carried out.*
- *The ewriter's activity is explicitly partitioned into newly-conceived roles: meta-writing as text planning; actwriting as the actualization of the meta-text, as the act of writing itself; post-writing as final editing of the actualized text. Ewriting brings forth authorial segmentation, a time-extended sequence of authorial writing phases.*
- *As planetary net-integration evolves, as information becomes an interconnectable entity, ewriting processes will make so much use of data structures that invention will normally be thought of as and realized through re-invention or co-invention.*
- *Each new writing, invention, design or proposition will be sensed, perceived and reconceived through its web-presence as a potential element in a larger textual construction.*

- *Emerging netbred writing processes will increasingly challenge intellectual property theories and statutes. Current intellectual property values and legal theories will be obliged to readapt to new forms of authorship involving human machine integration.*



# Into Dimensionism

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## **Abstract**

*Dimensional analysis is the most effective tool for interpreting data “mined” in real time. In aesthetic applications, the power of the dimensionist approach is unparalleled, generating environments to contain or present objects encompassing traditional and new [electronic] media, producing layered and faceted narratives. Dimensional applications in other fields have proven immensely valuable, if not necessarily benevolent. It is of immense importance that dimensionism as a perceptual complex be explicitly identified, so that the various usages and applications advance under conditions that encourage transparency, representative functions and user accountability.*

## **N + 1 = Wiki**

Charles Sirato's dimensionist formula [N + 1] is proven in the dynamic generative structure of Wiki software. Frederick Taylor's "Scientific Management," the platform that reformed manufacturing productivity, is not possible without the precursor – provided in the multi-disciplinary work of Eadweard Muybridge and Thomas Eakins. Portraiture and profiling share creative roots, even if they diverge at the point of usage. To perceive and consider data within a dimensional framework – and each of these developments can be collectivized in an interpretive, expressive schema - is to engage in dimensional analysis. Dimensional art is a proof for dimensional analysis.

## **Cursor**

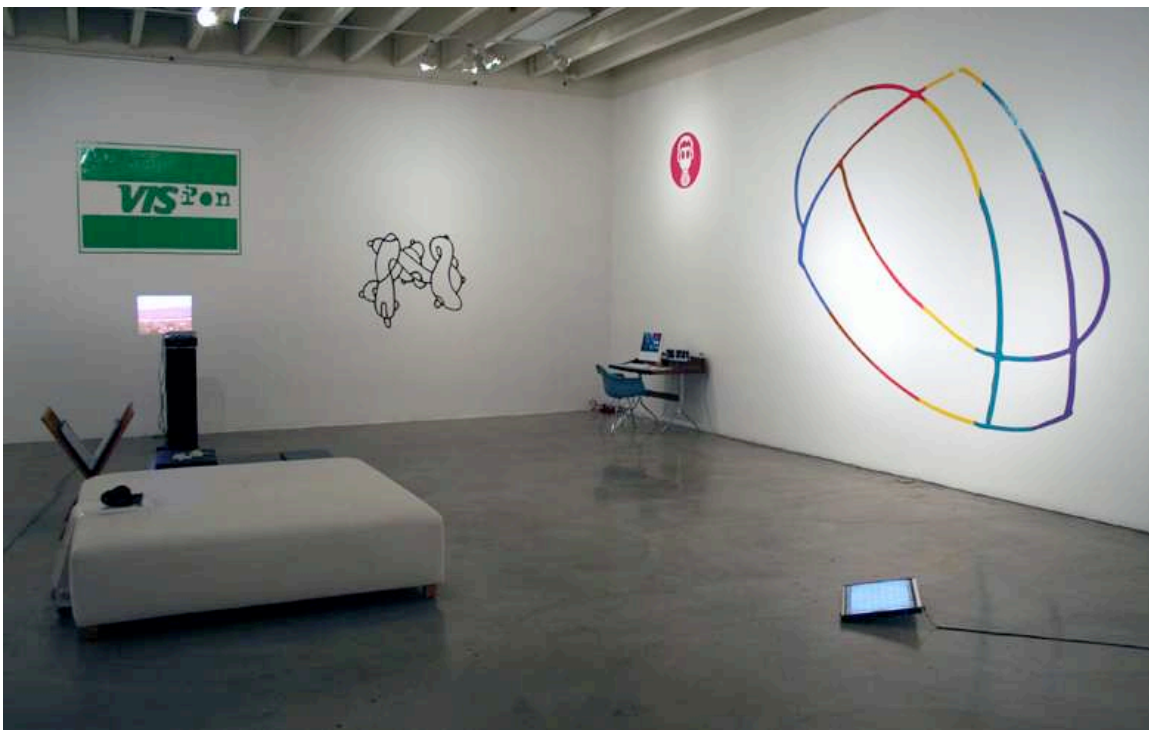
Understanding preservation and sustainability in a continuum is to recognize the inherent value of the object and its contingent informatics, including structure. Applying ethics to optics to define vision with meaning is essential to the survival of the Humanities in the digital age. The web as a dimensional modality is linguistic [abstract] in this respect. Art is visual [realistic]. To correctly assess the complementary natures of language and seeing entails the abandonment of destructive dualism-based conclusions and top-down hierarchies. Dimensional processes embrace text and visuals, as objects and representations of objects.

## **Critique Fails**

Dimensionism refutes criticism, except as an indicator of managerial controls. The apparatus for improved performance is multi-directional in the dimensional production construct. In the first scenario, the product is enforcement and consumption. In the second, the product is an array of singular, object-based contributions, within a collective project-based context, as a mutual benefit. The dimensional method is fundamentally autonomous and egalitarian.

## The Dimensional Object

The inhibition of dimensional perceptual evolution is caused by exclusionary, reductive force applied as restrictions or sequential command complexes yielding oppositional social configurations. Algorithms for redistribution of wealth or the identification of terrorists are examples. Combined with oppressive assets, such formal interventions – reducing freedoms to design problems or issues – inflict tremendous systemic damage in the social ecology. It is of vital importance that the agents of art and science effectively circumvent the forces limiting or co-opting dimensional expansion in all domains of human endeavor. A significant first step would be the abolition of artificial personhood for corporations. A second would be the restoration of pre-eminence [in the free speech arena] for singular, object-based expression.



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# The metaplasticity of virtual worlds

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## **Abstract**

*The Web which has started as a network of shared documents is rapidly increasing to interactive environments of communications. This paper analyzes the evolution of the global network towards the new paradigm of the 3d internet. The goals in this study are to propose a new metaspace semantic model, based on previous definition of the metaplastic visual language codification. The research includes the project of the web3d metaspace within some examples of configurations.*

## **1. Introduction**

The World Wide Web (WWW or “The Web”) is currently the most popular internet information system and its contents are mainly based on the HTML markup language and the HTTP client/server protocol of communication. The user interaction is made within the navigation on the online contents sharing them with others people within the web’s hyperlinks mechanisms. It was attempted to extend the webstructure from its own typical 2d webpage format to the 3d visualization space, in the last years. This effort was made within the Virtual Reality Modelling Language (VRML) since the release of the first VRML browser in April 1995. This standard 3d data format is currently used for storage, interchange of 3d models in information systems and web3d visualization. This platform is actually integrated with several mark up languages and is evolved in the X3d data format. Nowadays there are numerous web3d platforms online but the Web as new media appears again far away to have an its own specific way of showing the contents differently from the metaphor of the (web)page.

This paper tries to present a new definition of a metamedia conceptualization based on the previously defined concepts of the metaplastic virtual space.

The paper is organized in the following way: Sections 2-3 gives a theoretical introduction with the focus on the artistic models of the plastic arts that have been proposed for the development of the metaplastic conceptualizations. Section 4 describes the digital metaplasticity and its related definitions. Section 5 present the Metaplastic Metaspace semantic network and its related definitions. Section 6 describes the Web Metaspace system architecture within the explanation of its own dynamic rules. Section 8 outlines the conclusion of the paper and its future developments.

## **2. Archetypes of virtual reality**

The technological innovations and the artistic interests has been closely linked in the first years of

the Twentieth Century. During that period, different plastic movement designed the machine as their icon, a symbol of modernity. In the fervour of these years, artists got involved within different ambles and experiences in a creation process of shapes and new disciplines that will turn out later on, into virtual languages.

### 3. The Kinetic Arts

The Manifest of Futurist Reconstruction of the Universe wrote in 1915 by Balla and Depero, emphasizes the particular interests of the Futurism movement which suggested, in a near future, the fusion of the Art and Science. Boccioni, one of the major futurist exponents, painted and theorized on the bases of the plastic dynamism, using the arrangement of diverse materials. Boccioni therefore, aimed to represent the Space of the Soul and he has tried to decompose the object-painting, to explore the Pure Becoming of the Perception. He places the spectator at the center of the artist's painting as in his artwork "The Matter", where the idea of the plans interpenetration, reaches up remarkable levels. In that image, he obtains the objective that would made the spectator and the entire scene eternal, nearly a possible virtual space-time. For the artist, it is the light that gives life to the shape and in this concept, he seems to relate the secret relationship that exists today between the digital images and the coded artefacts, which regulate the movement in the computer spaces. The futurist-machinist aesthetics development, coincides with the contemporary birth and spread of the Constructivism, which assumes its own inspiring models from the world of the Technique and the Industrial civilization. In the Bauhaus artistic movement, as an example, we find correspondence with these thematics, in the theories of Laszlo Moholy-Nagy in "Theater der Totalitat" and those of Walter Gropius in his text "Totaltheater" of 1927. Moholy-Nagy wrote: "It is time to develop activities, which will not allow the masses to remain spectators, which will not only move them inwardly, but seize them, make them participate, and in the highest transports of ecstasy, allow them to enter the action on stage"[6]. Moholy-Nagy reinterpreted the ideas of Richard Wagner with reducing the importance of the spoken word in a synthesized vision of the space, movement, sound, light, composition and increased different artistic expression with technical equipment. He demanded complete mobilization for all artistic forces to create the *Gesamtkunstwerk*. Moholy-Nagy in 1929-30 started his researches on the light, the space and the movement. He constructed his machine, the "Lichtrequisit" (Space- Light Modulator), introduced in 1930 to the international exposition of Paris, describing it like "construction half-sculpture and half-machine".

The construction was described by the author as "a superficial reflecting machine, in motion, on a circular base in which three cells create the movement in the given space. The rectangular metallic pieces move in irregular and undulatory way. The second part, perforate metallic discs

complete a vertical movement from above to the bottom, that frees one small black ball, which crosses this space. In the third cell, turns out a glass spiral that produces a virtual conical volume. The construction, moved by an engine, is fortified with a hundred electrical light bulbs of various color, connected and controlled by number of coils which create a complex light show"[6].

#### **4. Conceptual Realities**

This section introduces definitions of the elements involved in this virtual reality research field.

The philosopher Karl Popper defines three kind of world's experience into the human society: "*First, there is the physical world – the universe of physical objects...this is I will call World 1. Second, there is the world of mental states; this is I will call World 2. But there is also a third such world, the world of the contents of thoughts, and, indeed of the products of the human mind; this I will call World 3*"[13]. The aim of the virtual reality is also to create a conceptual "world-in mind"(World3) experience through high technology systems.

*The human perceptions and cognitions are the links between the real world(World1) and this conceptual worlds(World3)[14].* The principles of plastic arts and the contemporary virtuality discover their common genesis: "*Virtual Reality was discovered early on by artists, how appropriated it with their own method and strategies*"[5]. The artists create alternative vision of reality, particularly the fantastic world of Hieronymus Bosch and Brueghel are visions of other dimensions, as the imaginary worlds of Klee, Kandinsky and Mirò. The surrealism aesthetics has been founded on the notion that the things should be purely interior and emerging from the imagination or subconsciousness. André Breton, whose literature is an example of those aesthetics, described the painting as a window that looks at these imaginary worlds. The artists, en brief, with their own artworks create conceptual "world-in mind" realities like many "World3". The conceptual world modelling requires "*to integrate art, science and technology to create integrated culture*"[14].

#### **5. Digital Metaplasticity**

The codification of this abstract spaces into virtual reality, leads to the definition of abstract art world modelling. The following indications introduce three necessary levels of theoretical definitions:

- The *Meta-plastic transdisciplinary research field* is composed by Humanities, Science and Technologies that defines studies through the definition of meta-plastic symbolic systems[2].
- The *Meta-plastic Art&Design*, as a part of the meta-discipline described above, is a specific research field regarding Arts and Design[2].
- The Digital Metaplasticity is the specific property or attitude which defines methodologies that

apply plastic art languages to computational symbolic systems[2];

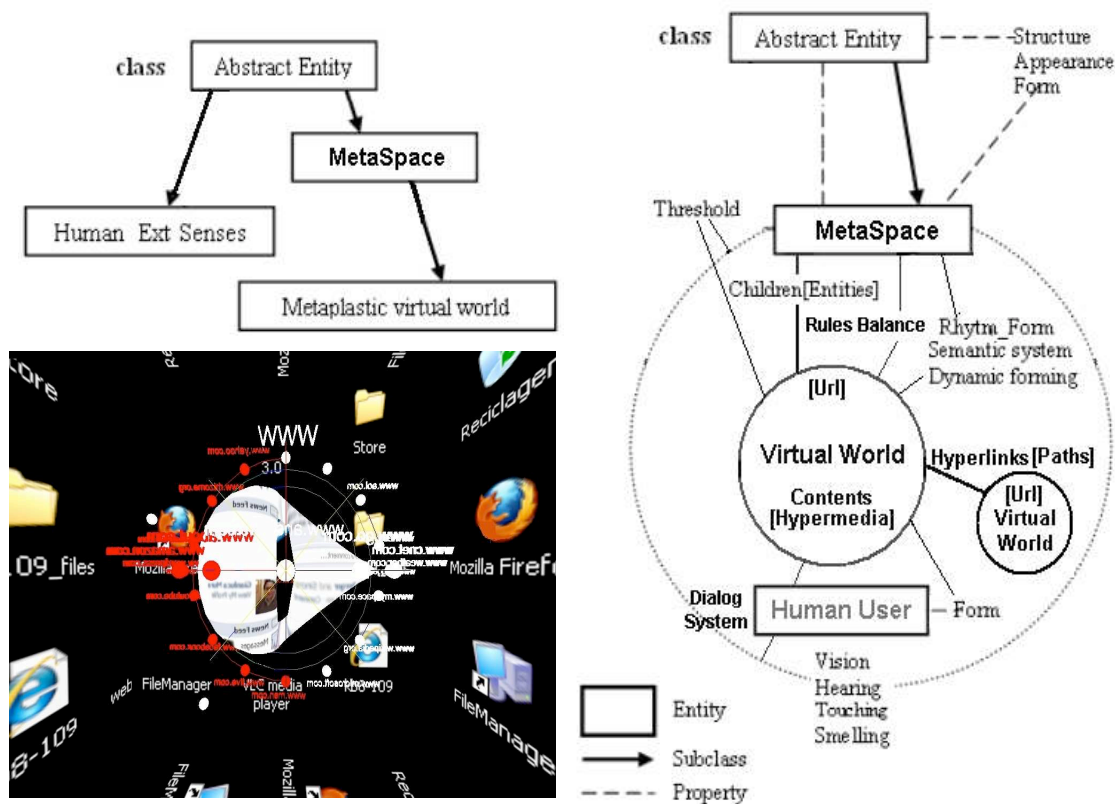
- The *Meta-plastic languages* are conceptual models based on abstract art languages rules applied to digital symbolic systems [11].
- The *Meta-plastic virtual worlds* are complex digital spaces which directly interact and act behaviours within the applied meta-plastic metalanguage rule configurations[11].

## 6. The Metaplastic Metaspace

Before introducing the main issues and principles concerning with the contents topics, according to Ted Nelson[12] and Marshall McLuhan[8] referred to new relationship between form and content in the development of new technologies and new media. At the beginning of the 21<sup>st</sup> century Lev Manovich utilizes the term Metamedia[9] and focuses on social and cultural collaboration across theatre and performing art to adaptive software development methodologies. I introduce a brief overview about the principal web subjects like hypertext, multimedia and hypermedia, as follows:

- A hypertext is modelled as a network of nodes that are connected through a set of links; A node usually represents a concept and a link connects related concepts;
- A multimedia presentation is characterized by a combination of multiple media, such as text, sound and/or motion video. Multimedia presentations differ from the usual motion pictures or movies because of the user interaction;
- A hypermedia is a combination of hypertext and multimedia, having each component of the hypertext a self contained multimedia presentation. Links can be defined among any set of multimedia objects, including sound, motion video and virtual reality. In the literature, the terms of hypertext and hypermedia are often used interchangeably and we will make the same assumption in the sequel;
- A Metaplastic Metaspace is a which is a conceptual cyberspace occupied by a network of web metaobjects (Metaplastic Virtual Worlds). The ontology of the metaplastic metaspace, includes the explanations of the notions and the relations below :
- The “abstract figure” as the fundamental ancestor element of the model;
- The virtual world, entity subclass, is a fuzzy dynamic system(FSM)[11]. It contains other space elements (children) which communicate with them and the user within his sensorial threshold.
- The virtual user, entity subclass, is represented by his extended sensorial state values that the system output generates within the interaction processes.

The Metaspaces acquire knowledge during its processes from every element. At the same time, some part of the ontological knowledge base is shared between the entities. The structure of elements are described in term of group and individual roles hierarchy. Every virtual world (node) has its own web address(URL) and a hyperlink network that refers to other virtual worlds (subnodes) connected to the previous one and all between each other. "The visual language is made up of related meaning and events dynamics within the metaspaces. The movement is determined from the qualitative relations and quantitative elements between the environment, its own network nodes and the user. These dynamic relations establish the equilibrium of the virtual space determining the meaning representation through its shapes and spatial relations"[11].



1. Taxonomy (Left Top), Ontology (Right) and the Metaspaces (Left Bottom).

## 7. Web Metaspaces Visualization

The user's pointing and clicking action through traditional hypertext browsers is the dominant

navigation paradigm for the World Wide Web. The Web is so interconnected and the clicking one's way can also be very disorienting for the user to establish a mental model of its structure and its own navigation path. The one-dimension history lists are one common navigational aid.

The navigation list offer provide a way to think about the documents at once, but doesn't offer any help to understand the connection between them. Traditional web browser limit the user's knowledge of a document at once to see its connections only in one-way modality without show incoming links. Moving up to three dimensions allow us to see both multiple documents and the links between them. In this way, we can explore an huge section of the Web through the Metaplastic abstract Metaspace representation. The metaplastic metaspace shows its own dynamic semantics through the visual formalization of the rings structure (the complete metalanguage ring structure is visualized in the figure above on the left bottom) which are linked between them, compose the grammatical rules of the visual language. The groups of rings define the signs of the language set, the selected token and the relations among them. The settings vary with rotations of their axes. Different rings structure configuration define new kind of metaplastic visual language. The abstract plastic figure is composed with the following form elements: Form Rhythm structure: is a structural equilibrium composed with dynamic relations of form\_weights, distributed along figure's dimensional extensions; Form Sequences: are structural patterns for figure definition which identifies a basic unit of points within the form volume; Form Variations: are rhythmical balance relations between form weights. The form variations and sequences are the components of the Rhytm\_forms; Form Aspect: are appearance qualities of the figure,determined with: Color qualities: indicates the chromatic qualities; Consistency: indicates the level of qualitative consistency of the element; Brightness: indicates the light quality; Hermeticity: indicates the element different degrees of accessibilities to reach the contained informations.The Metaplastic Hypermedia Rhythm Form is composed with the following form elements showed in the table below:

Form Rhythm $f = (DE, W, D, S, P, V, C, B, Co, H)$	
FORM	Width angle degree (W)
	Depth angle degree (D)
	Form weights (P)
	Form variations (V)
	Definibility (De)
STRUCTURE	Sequence connections (S)
APPAREANCE	Chromatic quality (C)
	Brightness (B)
	Consistency (Co)
	Hermeticity (H)

**Tab.1 Form Rhythm elements structure**

The following formulations define the Form Rhythm development criteria and how its own complex form is computed:

Rhythm Form rules = (W+D)\*  $f_{FORM}$  (interp(P, V, S));

The following function defines the complexity of the rhythm form as:

Form Complexity function  $(F_{width} + F_{depth}) * (f_{rap}(g_{variant}, f_{sign}(g_{variant}, gw_{m[i]})))_{int} * (f_{rap}(g_{variant}, f_{sign}(g_{variant}, gw_{m[i]})))_{ext}$ ; The parameters used in the previous formulations are defined in the following way as:

$F_{width}$  = Form width;  $F_{depth}$  = Form depth;  $f_{rap}$  = relationship function;  $f_{sign}$  = form sign function;

$g_{variant}$  = function Form variation;  $gw_m$  = Form weights; int = internal; Ext = external.

The numeric values of the previous parameters define the following form meaning:

[0 - 1] value	FORM COMPLEXITY FUNCTION PARAMETERS VALUES	[0 - 1] value	FRAP FUNCTION MODE
0 - 0.1	ASCENDENT / DESCENDENT FORM COMPLEXITY	0 - 0.2	IDENTITY
0.1 - 0.2	LINEAR / ARTICULATE FORM COMPLEXITY	0.2 - 0.3	ADD
0.2 - 0.3	ROTATIONAL CLOCKWISE-ANTICLOCKWISE FORM COMPLEXITY	0.3 - 0.4	NEG
0.3 - 0.4	ACUTE / OBTUSE FORM COMPLEXITY	0.4 - 0.5	MULTIPLICATE
0.4 - 0.5	INCREMENTAL MORE/LESS FORM COMPLEXITY	0.5 - 0.6	FRACTION
0.5 - 0.6	SQUARED LARGE/NARROW FORM COMPLEXITY	0.6 - 0.7 >	EXPONENTIAL
0.6 - 0.7	SMOOTH MORE/LESS FORM COMPLEXITY		
0.7 - 0.8	LOOPED MORE/LESS FORM COMPLEXITY		
0.8 - 0.9	CONTINUE / DISCONTINUE FORM COMPLEXITY		
0.9 - 1.0	ECCENTRIQUE MORE/LESS FORM COMPLEXITY		

**Tab.2** Form Rhythm

complexity parameters.

## 8. Metaspaces dynamic rules

The metaplastic metaspaces is a network of dynamic systems(FSM) driven by abstract art rule relations that transform sequences of user's sensory inputs, which produce feedback and send them as a response to the output of the environment to generate movements and behaviors. The sensorial result is a fuzzy truth value that activates the decision making process[11] of the metaspaces itself and its own sub-spaces. The user during his own visit experience, differs his emotional states with the environment, which change from "Sensing" to "Feeling" through recursive cycles of feedback. The transitions of sensorial states are activated by proximity to the objects. The activation level of the system is calculated by the following general rule:

$$MS_i^{new} = f(\text{Proximity}_i, (MS_{state_i}, (\text{Object}_k \text{ state}_i))) + MS_i^{old};$$

Proximity  $f(P_x) = f(\text{User.position} - \text{Threshold})$ ;

Dialogue State changes: if  $P_x > 0$  Then  $MS = V_s.rules[\text{Sensing interactions}]$ ; if  $P_x = 0$  then  $MS = V_s.rules[\text{Feeling interactions}]$ ; if  $P_x < 0$  Then  $MS = V_s.rules[\text{Acting interactions}]$ .

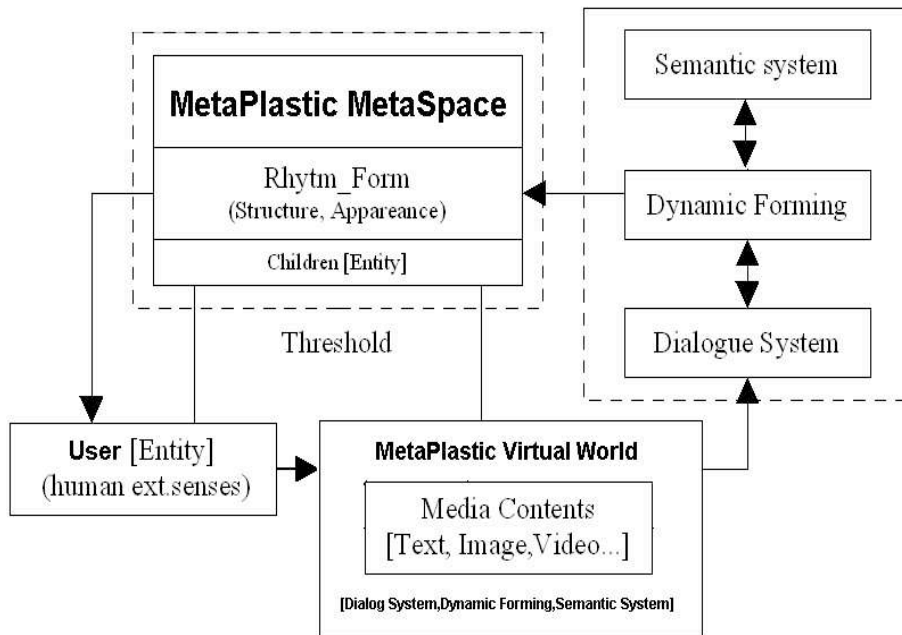
MS=metaplastic metaspace;

f=trigger function; i,j =state; k= item shown.

The “human-machine” interaction process is analyzed by the system through sequences of feedback. The initial state of “dialog system” (Sensing state) starts with the human emotional states induced by the artificial environment analysis. Every stage of the process is compared with the previous experience. The response produces a consequent system behavior. The final phase is produced from a human action towards the environment (Acting state) that at the same time induces in himself emotional consciousness (Feeling). The behaviors of the system base its processes on the rules matrix of relations among dynamic form elements. The interaction within the dynamic cycle unifies sensorial states of the form, creating complex behaviours of space elements and assign meaning through movement codification of figures in the “Red and Black”[10] semantic space.

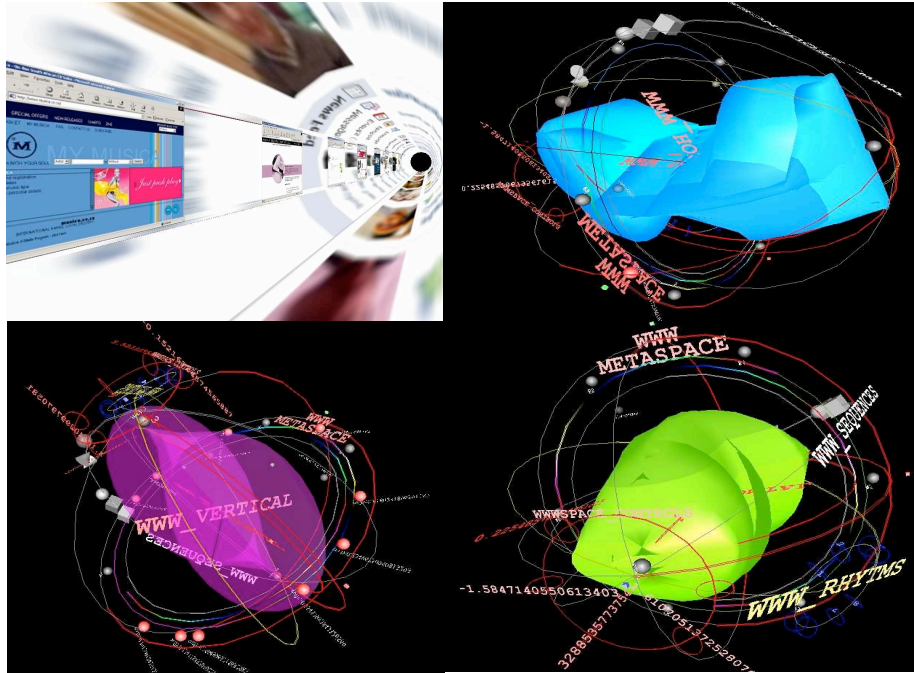
$$\text{Balance}[i] = \sum_i (f \text{ Senses}(\text{weight}) * f(\text{interp}(\text{RB}_k, \text{Rb}_{k+1}))).$$

The whole system processes are defined by:  $\text{MS}_{ij}^{\text{new}} = f(\text{semantic}_i, (\text{syntax}_j(\text{Dproximity}_{ij}))) + \text{MS}_{ij}^{\text{old}}$ .



## 2. Metaplastic Metaspace Architecture





3. Some Metaplastic Metaspaces configurations

## 9. Conclusion

The research paper demonstrates the implementation of semantic virtual spaces to a new typology of cyberspace: the Metaplastic metaspaces. This approach gives a new vision of cyberspace which should become a semantic 3d metaspaces. The future works will try to define the metaplastic arts&design research fields and their implementations into new media design research area with a forthcoming book with the title "*Meta-Plasticity in Virtual Worlds: Aesthetic and Semantic Concepts*".

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# How individuals build their own entertainment brands using the Internet

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## **Abstract**

*The main focus of this study is to identify and analyze the strategies commonly used by average individuals and groups in developing and broadcasting their personal entertainment concepts through Internet, reaching specific targets and building and positioning their own brands without using more expensive marketing resources.*

## **1. Your Brand can pay the bills**

Web 2.0 raised in 2004 introducing fundamental changes in the internet content publishing processes and tools. These tools, based on the virtual space democratization and decentralization premise, had grown in both popularity and adoption by average individual thanks to factors like the ever expanding internet access, the internet freedom of speech, and the power to very quickly create opinion leaders and social trends that the Web offers.

The use of internet has been in constant change and the nowadays orient is aiming to socialization and ideas exchange between individuals that has voice and personality of its own. Is very frequent to find user generated content in the first search results in Google, Yahoo, or Bing.

Internet has become very fast and by its own right in a democratized massive communication and interactive exchange media. This media puts individuals and every size companies at the same distance to the target audiences: a few seconds and two or three click away. This audience access potential makes more plausible to average individuals and groups to succeed in their effort to engage audiences and costumer using its own brands and commercial offers.

The focus of this work is to identify, by studying three representative cases, the strategies and trends successfully used by average individuals and groups to build its own entertainment brands with good commercial and income generation potential to its holders/creators. The studied cases

are the brands and Latin-American phenomena **Huevocartoon** and **Ataque de Pánico! (Panic Attack)** as well as the Chinese originated and worldwide known brand **Xiao Xiao**.

## **2. Brand's brief history**

### **1. Huevocartoon**

The *Huevocartoon* brand was created in Mexico in 2001 by Rodolfo Riva Palacio, Carlos Zepeda Chehaibar, Gabriel Riva Palacio Alatraste y Rodolfo Riva Palacio Velasco. The brand starts with a modest infrastructure and liquid capital investment. The first massive broadcasting platform used to create brand awareness was the Website *huevocartoon.com*, published in 2002. The *huevocartoon.com* contents are landmarked by the satiric and funny topics closely related to the Mexican society and its current events. During the first three operation months, the Website recorded 3 million visits and, by the end of 2004, the daily visits counter reach 230,000 users. The brand founders decided to use the audience acceptance and exploit their brand commercial power through the licensing agency Tycoon.

In 2006 the *huevocartoon* brand was used to produce its first film: *Una película de Huevos*. The film, successful since its first showing weekend, was produced with a 1.5 million dollar budget and an animation and drawing team of 100 members.

In 2009 the second film, *Otra película de huevos y un pollo*, was produced collecting 34 million MXM during its first weekend, a new record for the Mexican film industry.

Nowadays *huevocartoon* brand is used in a wide commercial opportunities spectrum including gift products, board games, clotheslines, etc. The Website *huevocartoon.com*, although displaced by the internet giants, it continues enjoying lots of daily visits and a good positioning on its target market.

### **2. Ataque de Pánico! (Panic Attack!)**

*Ataque de Pánico! (Panic Attack!)* is a 4:48min Uruguayan short film directed and post-produced by Federico Álvarez, and produced by a base team of about 5 members and an auxiliary team a little bigger. Incorporating live action, animations, special effects and a very Hollywood styled visual narrative, the short film presents the Montevideo city being severely attacked by a group of giant robots.

During the three later publication months the short film gained more than 5.5 million views on *youtube.com*. The short film meteoric popularity and the international projection offer by

youtube.com made possible that the shot film attract the attention of *Spiderman* director Sam Raimi and the production agency Ghost House Pictures.

Raimi and Ghost House Pictures offered to Alvarez a very attractive production contract that includes an approximate budget of \$30 million dollar. This Los Angeles based project is considered the biggest offer made to a Hollywood debutant director.

### **3. *Xiao Xiao***

*Xiao Xiao* is a brand launched in 2001 by the Chinese animator Zhu Zhiqiang. The brand awareness was implemented through a series of animations featuring very schematic characters known as stickmen. Stickmen are involved in kung-fu sequences that resemble the *Matrix* film fighting sequences. Some animations are interactive and very similar in its narrative treatment to a videogame.

The first animation used to broadcast the brand was published in AVI format in a number of specialized animation Websites. During the later three weeks if publishing the animation was virally exchanged by the target audience via e-mail and diverse physical storage media. After its first animation release, the brand creator decided to use Flash as its standard animation publishing format. The later animations were posted in the Flash animation specialized community *newgrounds.com*.

The *Xiao Xiao* #3 episode had a huge reach on its target audience. *MTV* channel decided to transmit that episode, gaining more and better position in the young audience.

*Xiao Xiao* creator had managed to commercialize many advertising spaces on the brand official Website. At the same time, he had successfully licensed his brand and had obtained economic compensations for the non-authorized used of his characters.

### **3. Observed Strategies for Brand building**

#### **1. *Shared Key Aspects***

The three studied cases are archetypes of key aspects in building any brand. First, the three brands uses *content marketing* to gain access to its target audiences. The roles and order of content marketing value chain activities had changed a lot since the raise of the internet. Nowadays on internet, the *content producers* can directly introduce, promote, and position their contents via content generated channels like youtube.com, facebook.com, etc. and when the brand is relatively positioned, specialized content is generated for free in form of news.

On the other hand, the conception and production of professional and semi-professional quality content is easier than ever thanks to sophisticated, friendly and widely affordable software tools.

At last, the Internet integrative nature allow content developers to extend their audience reaching to include activities like brand implementation and product/service selling, all through the internet and with very little budget.

## **2. Brand Characteristics and Qualities**

The value of the brand is higher than de value of the products represented by it. In the case of entertainment content marketing this is true according to the theming, associative positioning and the quality and professionalization reflected to the target audience in the final product.

Given that the qualitative aspects of the brand are closely related to the perception of the target audience, it's advisable to define the audience, to develop a concept aligned to it and to incorporate business objectives. This process initially happens in an intuitive and organic way in the studied brands, however, it can be aligned to the marketing discipline to catalyze the results in brand building.

Below there is a comparative table that shows the building and maintenance strategies used by the three studied brands:

<b>Brand Strategy</b>	<b>Huevocartoon</b>	<b>Panic Attack!</b>	<b>Xiao Xiao</b>
<i>Initial liquid investment</i>	Low	Low	Low
<i>Size of the work team</i>	Small, 4 members	Small, 5 members	Minimum, 1 member
<i>Initial Publication Space</i>	Own Website Huevocartoon.com	Public Website Youtube.com	Public Website Newgrounds.com
<i>Mechanism of Introduction</i>	Viral	Viral	Viral
<i>Mechanism of Diffusion /Maintenance</i>	Own Website Specialized Blogs News Portals Social Networks Paid Advertising	Own Website Specialized Blogs Social Networks	Own Website Specialized Blogs Social Networks
<i>Period of dissemination</i>	~3 months	~1.5 months	~1 month
<i>Localized Content</i>	Yes, México	No	No

<i>Content related to actual topics</i>	Yes, Mexican events	Yes, Popularity of CG/Vfx Productions	Yes, Matrix popularity
<i>Brand Architecture</i>	Master Brand and Family Brands	Personal Brand	Individual Brand
<i>Brand Management</i>	Third party, Tycoon	Own	Own
<i>Business opportunities Spectrum</i>	Wide, in-situ advertisement, merchandise, movies, etc.	Limited, personal level use	Wide, without complete use
<i>Comparative brand market value</i>	1	3	2

**1. Building and maintenance strategies used by the three studied brands.**

#### 4. Conclusions

Entertainment brands are excellent business options and professional accomplishments for any individual or group interested in content production and/or in the creation of jobs and income.

Thanks to the resource platform that Internet offers, content development tools availability, social networks boom and democratic broadcasting new services it's possible for individuals or groups of average profile to build entertainment brands that achieve good diffusion results in their target audience, with low or moderated initial liquid investment.

When building an entertainment brand, it's advisable that creators (individuals and groups) follow the marketing discipline to increment the building speed and to improve the brand's commercial value. Likewise, it is of value to evaluate and constantly select the opportunities of brand's commercial growth and the associated resources for taking benefit of it.

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# Role of Web 2.0 in Organizations

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## Abstract

*This study has focused on how Web 2.0 tools may affect the company collaboration process. Those tools which are used internally by organizations for messaging, chatting, online meetings, weekly reports, online video lecture base, bugs/error reporting, working monthly hours reporting etc. are studied. This study tells us how work is made easier by using these collaborative tools and why managers are more satisfied now because of using these Web 2.0 technologies. Web 2.0 helps in collaboration. Web softwares may assist in improving collaboration. There are many advantages and disadvantages of Web 2.0. Some advantages are faster collaboration, quick feedback and effective collaboration. The most significant disadvantage found was the breach of secure data if wrong access is granted to the employee.*

## Keywords

Web 2.0, advantages, disadvantages, collaboration, organization

## 1. Background

Collaboration is very important in organizations to run the business activities. If collaboration within any organization is not satisfactory then the other processes in an organization such as decision making, knowledge sharing, creating a culture, creating motivation and so forth would fail (Jacobsen & Thorsvik, 2002). Web 2.0 can be understood as a platform of all technologies where users gather up and share information.

There is a need for organizations to be studied from a collaboration perspective with focus on how people use collaboration and how they become affected by it (Strid, 1999). We will try to answer the questions as how can Web 2.0 tools assist in internal collaboration? And what are the positive and negative effects of using such tools for the organization?

### **1.1 Web 2.0 help in internal collaboration**

Figure 1 below shows the centralized model and the collaborative model in Enterprise 2.0 that can be supported using Wikis. Employees collaborate using this model for keeping each other updated with the timely information.

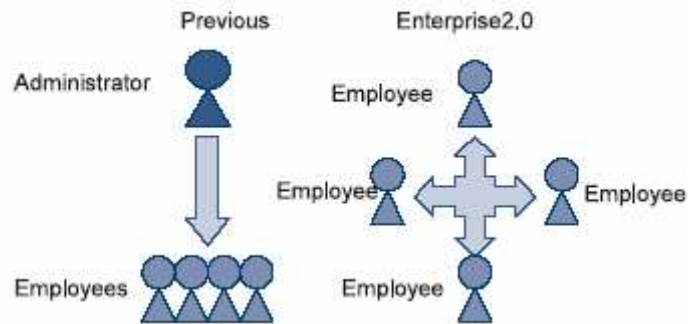


Figure 1: Differences from previous information sharing systems (Yukihiro, 2006, p. 2)

Web 2.0 tools can help build teams of employees which have same competence and they can communicate within different offices (Shuen, 2008). Companies adopt the new Web 2.0 technologies to make use of intellectually prepared documents to advance their own business model (Chesbrough, 2003). Woods and Thoeny (2007) claim that sharing experience information with others is unnatural, so when it comes to co-authorship of collaboration it's unlikely that employees will fully collaborate. But when employees work on Web 2.0 tools like wikis and become co-authors of the articles that are read by many people then individualistic work behavior transforms into collective pride and they become part of a virtual intellectual community (Woods and Thoeny, 2007). It's the task of management to place employees under relevant department managers who can make the best use of their competence (Seybold, 2006).

Managers when implementing a new Web 2.0 collaboration tool in the company need to take care that they are not imposing the new tool on the employees but explain them step by step the benefits of the tools so that employees don't resist change as changing an employee's thought and behavior is not something that can happen over-night and a good leader can solve the employee differences of opinion efficiently (Seybold, 2006).

### **1.2 Benefits from Web 2.0 tools using in organizations**

West and West (2009) say Web 2.0 tools like wikis are best to use when all the employees are free to use in terms of putting content, edition, deleting it without any checks. Wiki offers the

possibility to write documents collaboratively. Wiki is a Web 2.0 technology as it has the characteristics that it is participatory, decentralized, linked and emergent. Wikis content is dynamic and it is open for authorship. Using Web 2.0 tools companies create federated network where they can receive feedback from stakeholders, customers and partners. Employees can report their competence on these softwares so they know which other employees in the company have the same competence level. Employee feels easy to make ad hoc groups with other employees who have the relevant knowledge in the field to help each other. Using Web 2.0 users can get comments, meeting time updates etc from there group members or seniors. (Farber, 2007).

According to Dawson (2009), the achieved benefits using Web 2.0 can be increased productivity, faster innovation, and efficient project management, reduced email overload, improved team performance, better internal collaboration and enhanced search.

### ***1.3 Key concerns of using Web 2.0 tools in organization***

When the company shifts to Web 2.0 it becomes more vulnerable due to quickness, easier and fast data transfer tools (Laudon & Laudon, 2004). Web 2.0 tools may produce unwanted and undesirable outcomes: it could reveal information which will affect company stakeholders as a wrong decision made by the manager or their incorrect implementation. Unpredictability can occur if the organization is not well prepared to cope with the information provided by the Web 2.0 tools. An additional issue is liability i.e. who shall be held responsible for bad decision which has put the company at a loss. If the wrong decision is made by the employees then this can also affect company's external contacts. Since in Web 2.0 collaboration participants are online so some people may not give their opinion as they are shy or they may feel that their decision may bring a negative effect on their image (Bonabeau, 2009). Improved levels of access to sensitive data for the employees in the company will definitely give better management. Business manager can be granted the right to allow the kind of access and level of access for the employee on the Web 2.0 software (Johnson, 2008).

Dawson (2009) suggests that the risks of using Web 2.0 in terms of security, loss of control, use of resources and productivity. The main risks are information loss, negative comments, information unreliable or incorrectly used, reduced staff productivity and bandwidth overuse

## **2. Help in internal collaboration by well-known Web 2.0 technologies**

Well-known internet based technologies in the companies (Holtz, 2006) are mentioned below. All of these are themselves big research topics. Many pages can be written on these technologies.

### ***2.1 Wikis and Blogs in internal collaboration***

Bean and Hott (2005) say wikis may help to create documents by user collaboration. Wikis allow multiple users to post their data as compared to the blogs which only allow one user to control the information content.

There are many advantages from wikis. Wikis can asynchronously keep the opinion given by experts, professional and all employees. Wikis can be used for training of employees. It saves cost and time. HR departments use wikis for workgroup management, electronic learning, distance learning, making use of employees having certain expertise for other departments. Wikis and blogs are used together then this helps to link different information together by highlighting the important information nuggets from both sources. Wikis promote discussion in teams of small groups. Blogs can be considered as blank canvas of wikis, they are structured and have far more innovative environment and thus help in the project knowledge base development (Mattison, 2003). Wikis change the corporate culture and affect it as they change the thinking processes of employees.

There are few disadvantages from wikis. Some employees think that editing wiki documents is very difficult since they lack the comfort and structure which users require. Since wikis are open for all then it is very difficult to manage the hierarchy and to have accountability. Privacy issues, reputation, security and legal liabilities must be considered. On the wikis some employees may have a static mind and post their personal viewpoint which could be controversial (Jesdanun, 2004). There is then no guarantee that the data posted is accurate, compact, consistent and balanced (Wikis require access control for workgroups within the organizations and read write access for different employees who can post the data and remove it .Wikis don't follow serial documents or versions of documents instead they are cumulative. Some problems can be solved through cumulative editing in wikis but backtracking is not possible. The flow of progress cannot be measured. Thus, the content in the wikis might show the data which was the intellectual contribution from the last employee

## ***2.2 Podcasts in internal collaboration***

Podcasts (Holtz, 2005) are audio mp3 files. Podcasts are used for subscribing to any audio before it is actually posted. So whenever a new file is posted, podcasts allows sending a copy to that particular computer. The question is how can podcasting be used in internal collaboration? Managers can use this to post day to day issues or the employees can do RSS with the lectures or speeches given by managers and executives management. Podcasts can be used for receiving departmental updates and important information. Podcasts can be used for company news, information about the investors. It can be used for product announcements, for announcing vacancies for employee recruitment and for training employees. They can be used for helping geographically dispersed employees to remain in touch with head office (Holtz, 2005).

### ***2.3 Social tagging in internal collaboration***

Holtz (2006) claims that people choose keywords and collaboratively store the information on a shared resource using the keywords. The content in that stored information can be tagged. When the users tag the information, it becomes easy for others to find the information. Now the question is how can social tagging be used in internal collaboration? It can be used to help the employees in finding the content they need. When any employee adds the content to the intranet using content management system or puts it in the internal blog, he can put some tags also. He could tag the information according to what he thinks could be important keywords using which others employees will try to find some information on the intranet.

### ***2.4 RSS in internal collaboration***

Holtz (2006) argues RSS is used to save information online in such a way that users can download and use the information. An RSS “feed” is used for subscribing to the updates in that particular webpage when any new information is posted. Now the question is how can RSS be used in internal collaboration? People subscribe to “blogs” using RSS. Employees can subscribe using RSS feed to the internal news and important updates. In this way the important messages for example from managers can be quickly communicated to every employee.

Employees struggle to read a lot of work related documents online and from intranet resources. An organization RSS can be suitable for employees to feed the required information. RSS readers can be used such as bloglines to see the latest news available on any company internal blog. Companies are trying to implement the RSS because RSS are much effective and precise way to get information. Main disadvantages of RSS are security and users support (Carlos, 2007).

## **3. Conclusion**

We presented some Web 2.0 softwares like wikis, blogs, podcasts, social networks and RSS. Web 2.0 companies build teams of employees which have same competence and they can communicate within different offices. Unified collaboration has changed the life of employees and companies by introducing technologies like VoIP and IP telephony. Important information nuggets are quickly spread to the relevant department using Web 2.0 tools

Web 2.0 saves time and provides quick updating of information. Tools like wikis help employees to learn quickly. Web 2.0 tools allow enhanced search so employees get quicker results. It provides better internal collaboration and greater staff engagement. If Web 2.0 tools are mishandled then they create security issues like loss of confidential and competitive information, loss of control could occur if participants make negative or inappropriate comments on discussion forums. Reliability issues can arise if staff posts incorrect information on Web 2.0 websites.

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# The graphical Web

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## **Abstract**

*The World Wide Web is considered the largest information system nowadays. From the beginning, its foundations have been closely related to needs of documentation and information exchange. However, since the Web entered mass public, we have witnessed an extension of functions mostly coming from social and communication practices. One of the consequences of such change is the look of Web; not only supported by text and images, but also by a variety of other media, programming languages, extensions and environments. At the same time, it seems that the look of Web is mainly inspired by classic media rather than hypermedia. In this paper, we aim at discussing how social and communication practices affect the look, function and understanding of the Web. We believe that such an analysis is necessary in order to recall those advantages from hypertext systems into wide, open and network environments.*

## **1. The Web as medium**

Among other characteristics, the Web is considered the largest information system available nowadays. This status may be related to several factors, both from the development and the usage perspectives. It is well known that the Web started as a development of three main core technologies, the Hypertext Transfer Protocol (HTTP), the Hypertext Markup Language (HTML) and the Unified Resource Locators (URL). The principle behind the original idea of Tim Berners-Lee and other researchers at CERN was to distribute information in small chunks in order to cope needs of documentation and information exchange (Berners-Lee, 2000).

Further developments on the top of these technologies led to what are called today Web browsers. The first browser capable of embedding images was Mosaic (Andreessen & Bina, 1994). Along with this functionality, the Web introduced links, represented by blue-underlined texts. Other visual attributes of Web pages were inspired by documentation sciences: headings, paragraphs, tables, lists, or captions.

In recent years, with the advent of the Web 2.0 hype, we witnessed a strong participation of social communities (O'Reilly, 2005). The most significant shift involved seeing the Web not as an information system but as tool and environment for communication. Contemporary practices of common users comprise e-mailing, e-learning, e-working, photo publishing and retouching, listening to music, watching videos, connecting with other people, or simply surfing the Web.

From this standpoint, the development of Web has employed a variety of technologies to deploy and interact with content. The efforts of Macromedia Director, Lingo, and its Shockwave player are an example of Web-oriented languages, as it is the case for ActionScript, ASP, NET, VRML,



DirectX, or Java. While Berners-Lee and the W3C still are the reference for Web standards, other emerging technologies struggle to find their place in this vast universe of information.

The Web, for us, is an information system, connected online, and accessible from any application called a browser. The Web is the content displayed by Mozilla Firefox, Apple Safari, Google Chrome, MS Internet Explorer, KDE Konqueror, but even Real Player, Apple Quicktime, Google Earth, or mobile applications. What define the Web are its capabilities to use HTTP, HTML, URL's and other technologies that associate distributed resources in order to attribute a signification to them.

With the extensive use of Web, all kinds of users have shaped a Web which is graphical in its essence. As we will see, much of the content developed for this medium is conceived by following methods of human-computer interaction combined with classical media such as television, magazines, comics, maps, radio, cinema, executive reports, financial data, pedagogical activities, shopping marts. The graphical Web is a state of the Web characterized by the multiplicity of media and the metaphors associated to information design.

But with all this, a question has been troubling for years: is the Web a medium? According to seminal definitions of media such as "extensions of man" (McLuhan, 1964), we could say that the Web extends our human abilities to remember, to communicate, and to think in a reflexive manner. A Web site such as Wikipedia is more consulted than any other encyclopedia; Facebook is a huge address book; and, Web-based software such as search engines imply to make relations between knowledge and information. Another perspective of media leads us to think the Web as a network of practices and technologies (Debray, 1991). Furthermore, it can also be studied as the underlying element that supports and permits a communication model like sender-message-receiver.

Although the status of Web as medium is not the main issue of this paper, we do place the Web inside a long tradition of information systems known as hypertext and hypermedia. These systems have their technical origin in the prototype machine called the Memex (Bush, 1945). Other prominent systems, to mention a couple, are Hypercard (Atkinson, 1987) or more recently Tinderbox (Bernstein, 2003).

The originality that hypermedia research introduced was to concentrate on functionalities such as linking, fragmenting, combining, visualizing, reading, writing, and social interacting with information and in different media formats. Although these notions were the milestones in Memex, they existed at other eras, either as concept or as informal practice (Reyes, 2009). The hypertext and hypermedia community, nevertheless, has forged a rigorous background to study its own models.

In the following sections of this article we focus on the graphical and visual properties of the Web. Our intention is to draw a sketch for understanding the Web, based on its practices, look, and functions. Perhaps our sketch may provide clues to continue our reflection on the Web as medium.

## **2. Intermedia relationships**

The Web is a digital space and as such it can be configured diversely. We can imagine an HTML document as a set of rules for structuring and referencing media available in the Net. Because of its flexibility and expendability, any HTML document could be customizable. The Dynamic HTML set of technologies explored the distinction between structure (HTML), style (CSS), and dynamism/interactivity (MySQL, PHP, JavaScript) with elements. In recent years, components such as AJAX and JavaScript libraries have added simulation of real-time interactivity and complex animation.

Consider now the way other technologies coexist. Popular video sites, like Vimeo or YouTube, are a combination of W3C standards with Flash Player in order to shape an interface for watching, sharing, exploring, rating, commenting, or downloading videos. The same could be said for Flash-based games, artworks, explorations, and sites. We assist to hybrid forms of media. On one hand, they distribute content of classical media and, on the other hand, they respond to mass users expectations.

The seminal concept of remediation, discussed by Bolter and Grusin (2000), states that a medium is that which remediates. Any medium is inspired by others in order to achieve immersion into the content or hypermediation to get to the content (imagine the clicks on links and buttons to arrive to a desired destination from a search engine or from a Web site GUI). In this sense, we agree that the Web can take any form and look of any other medium. There are entire Web portals that mimic a desktop interface (including application icons, menus, shortcuts, functions and other conventions) and we have lived with photo galleries for a while.

It is precisely at this level that the Web seems to be yet another medium designed for classical media uses; that has no significant language to offer besides communication, quantity of information, and immediate access to content. However, if we deepen into this question, we may perceive that the Web does modify the communication process. Take a look at multiple tabs opened in your browser or to the multiple activities that young/infant users perform simultaneously. One strategy that proliferates through communication is writing short and fragmented messages.

Following hypertext studies, Michael Joyce observed two main types of systems: constructive and exploratory (Joyce, 1994). The first allow for creating nodes and associating links between them; it is also possible to edit/delete content or to add style/design. On the contrary, the exploratory hypertexts permit to navigate and discover information in different manners. A hypermedia

system consists of tools to read content linearly or by jumps; the state of the system is often visible and it supports a variety of view modes.

From this perspective, the Web is more an exploratory system than a constructive environment. Of course users can take advantage of online services to create Web pages, blogs, documents or sets of media, however the possibilities are limited. There are no typed links or several view modes; there is little support to calculate transclusions or to annotate information for collaborative work.

The Web is thus a large information system with a lack of prominent hypermedia functionalities. To operate in the Web implies to rely on technologies that build upon the immense amount of information. In this respect, search engines have become the access gate. Most of such technologies index content and then render results based on keywords typed by users. The short style of writing messages parallels the short titles and sentences that Google displays after hitting the “search” button.

In some respect, a list of search results can be considered a spatial type of exploratory hypertext. A model of hierarchy is visible from top to bottom, where the first item of the list is commonly the best related to the keywords typed. Moreover, some engines embed images into the list -Google may display maps, photographs, logos or add words- others arrange text spatially – Cuil shows results in two columns and sort content by popular categories and findings, grouped in boxes on right side of the page- and others propose a list of popular terms when clicking again in the text field, cf. Yahoo.

Is it possible to observe media interrelationships in those visual strategies? Are there any clues that reconcile hypertext studies and the Web?

As we suggested, our notion of the graphical Web is related to the multiplicity of media and metaphors of information design. Currently, there are interesting efforts that introduce emergent uses of Web to explore, analyze, and visualize information. A common method is to exploit graphical content and interactivity.

### **3. Graphical uses**

The role images play in our culture recalls that “images represent a technological intelligence that shifts the ways humans see themselves, from individuals to hybrid personae, where identity no longer resides in one particular place, object, or person” (Burnett, 2004:6). Indeed, Ron Burnett emphasizes the ubiquity of images in our culture. The idea that identity no longer resides in one particular place, object, or person is related to the universality of images, to the evolution of visual systems of signification. From a historical perspective, images can be categorized according to tendencies and schools; to epochs and styles. And it is precisely the same phenomenon that occurs nowadays. The production of images for the Web and other interactive media is creating a

hybrid social eye; it is developing a contemporary graphical culture based on media interrelationships... a combination of visual media, mass media and interactive media.

If we agree that images combine all media and that are a synthesis of language, discourse, and viewing, then we can approach some graphical conventions of the Web at the convergence of communication uses with classical media forms. The graphical Web relies on emoticons to express feelings and states of mind; uses arrangements of stars or grading scales to represent popularity; remixes icons to signify agreement with other sites/services; proposes rich text formatting to complete the user experience outside the Web browser.

But allow us return to the case of search engines. Our idea behind emergent uses of graphical Web takes us to consider two main types of exploratory spatial hypertexts: those who are media-oriented and those who try to visualize relationships and connections by means of graphs.

In the first category, we may cite a couple of popular media-oriented search engines such as Google Images, LivePlasma.com, or Oamos.com. With the exception of Google, these engines are mainly focused on searching information about music and movies in the Web.

Some recurrent visual strategies can be noted. The use of curves and spheres as main elements (there are also rounded rectangles, curved lines, spherical simulation); random spatial alignment over a solid-color canvas; the use of opacity and levels of depth; elements are color-coded (i.e. color matters); elements support basic interaction (dragging, zooming, pointing over); elements are visually linked (lines and spatial proximity); elements are animated (shape, position, scale) and, finally, all sorts of media are mixed and remixed.

In recent years, visual search engines and mashups have populated the Web. We must add that, when the sphere is not the prominent figure, it is also often to interact with mosaics and 3D perspectives. An interesting characteristic of media-oriented engines is their finite status. We have informally studied that, when users search for media assets, they desire to arrive to the latest URL destination, namely a JPG, PNG, MP3, MOV, AVI or any other media file asset. This effect is not always the same when users are new to a domain or when they deal with a vast field of knowledge. In these cases we often experiment the phenomenon of serendipity.

Regarding our second category, engines that visualize relationships and connections, it is possible to see that graphs are generated and constructed on similar visual basis as the precedent examples. For these systems, their usage can be considered as a tool for research and narrative; for discovering relations within a given field.

Take for example ManyEyes, a project maintained by IBM since 2004. It proposes to any user a Web interface to visualize data sets. The types of graphs are organized depending on common uses of visualizations: to analyze, to see, to compare, or to track information. Another example, more recent, is EyePlover.com which is field-organized and focused on creating relationships.

As we can see, all of these projects were born to live in the Web. However, we can hardly say that are based on DHTML technologies. They are developed with Java or ActionScript languages; they can run on their own location or be embedded into HTML documents.

#### **4. Metaphors in the Web**

So far, we have sketched two uses of the graphical Web referring to searching: media-based and relationship/connection-based. These uses have been considered as exploratory from a hypertext research standpoint. Such a simple overview would lead to thinking the Web as a universal medium, that is, a medium that fulfills expectations from two different users or, at least, two different types of use.

Nevertheless, there are common activities that persist in both uses: tagging, commenting, posting, publishing. What is difference from one to another? We believe it is the graphical representation. On one side, a tag might look like a regular keyword, while on the other side it may look like a hyperbole tag cloud. But is it only the graphical representation? At the end, what users are doing is layering information; they are adding semantics to unstructured chunks of information.

The value of visualization is to relate images and human creativity, as stated by Burnett: "Creativity in this instance refers to the role of viewers in generating what they see in images... the relationships that make it possible to engage with images. To visualize also means to bring into being" (Burnett, 2004:13).

The graphical Web struggles to represent information in different manners with the intention to better understanding it. The contemporary eye created and shared by social groups not only shows a fascination with digital media -its processes and aesthetic attributes- but also a diversity of ways in which users see themselves inside digital media.

The Web, as the largest information system, is also the less explored and known. With all the efforts to relate and view data, we are still at the surface level. What any search result renders, either in form of list or graph, are the semantics of collective intelligence. The tags inside Flickr.com or the indexed links by PageRank are all created by users.

At this point, we are inclined to say that users perform dialectically. The Web fosters a reflexive thinking when users decide the words to type in order to get the closest results to what they desire. At the same time, reading the Web becomes a matter of reading metadata; it is about reading titles, descriptions, links, menus, tags. To sum up, users are influenced to think as others had done.

Reading graphs, lists, images, or images&texts, constitute a first level hypertext representation of the Web. The recurrent practice of reading metadata, either linearly or nonlinearly, is a known

issue of spatial hypertext studies. Cathy Marshall has noted the anxiety of users to navigate from nodes to nodes without focusing on the deep content (Marshall, 2009).

We have introduced elsewhere the notion of zoomable media, the capacity of media to zoom from content to interface by making sense at both of these levels (Reyes, 2010). In this respect, perhaps our social eye needs to look at a third use of the graphical Web, this one associated to art. Prominent examples may be observed at the repository VisualComplexity.com or at the visual engine Viewzi.com which combines media and relations/connections. The value of art into information aesthetics resides in understanding that an image is ephemeral, its essence and effect must be searched beyond the screen or graphical device.

To conclude this section, let's go back to the aesthetics and visual strategies in the Web. We said that the sphere is a constant figure, as well as other non-angular forms. Is there a metaphor that goes beyond graphical? Could it be said that this metaphor is also anthropological? In this respect, Peter Sloterdijk has argued one of the most interesting points of view. In his famous trilogy dedicated to spheres (Sloterdijk, 1998, 1999, 2004), the German philosopher observes several levels of using spheres. First, social relationships create a self and intersubjective space, like bubbles. Second, the metaphysical thinking contemplates roundness as the whole; it looks for the globe everywhere. Third, foam is a metaphor to understand life in a multifocal fashion.

If we follow the modern research on visual semiotics, there are two levels to study images: figurative and plastic. The graphical Web for exploratory usage commonly shows recognizable objects like maps, cartographies, icons. On the side of plastic forms, we have texts, colors, lines, and circles. What is basically being represented are nodes and connections along with an extra-layer of signifying pertinence, incidence, and proxemics. At higher-level reading, relationships between spheres and other elements could be associated to a macro-level (the world, the Earth) or micro-level, the intersubjectivity. The value of the sphere is to represent rhizomes –where no center can be identified; anything can be the center–, cycles –start and restart; finish and start again; loops–, and the possibility to connect one single element to a diversity of other elements.

## **5. Conclusion**

In this article, we have approached the Web from its graphical representation, with their meanings and metaphors. Our intention has been to associate types of usage in relation to discovering information. The Web is continuously expanding and we believe its study is necessary to understand it as medium that modifies the communication process. But only recently the Web has been extended to communication and social practices, it is also an information system that relies on links –either spatial or textual– and as such could be regarded as a specie of hypertext.

Although it is difficult to foresee the look and uses of the Web in 20 years, we do have some clues about its support for graphical content. The current development of HTML 5, as presented by Tim Bernes-Lee (Berners-Lee, 2009), demonstrates native functionalities of SVG and SMIL.

Needless to say that most of these features have already been explored by other non-W3C technologies. A similar phenomenon could be seen about usages. We have artistic manifestation  
For now, we say a fact remains true and it is that both hypertext and the Web are visual media. They both belong to the image culture, to the social eye. Ron Burnett recalls well: “immersion in the image-world is simply part of what it means to be human” (Burnett, 2004:43).

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## The Memorable:

### Applying the Internet of Things to small communities

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#### **Abstract**

*RFID, radio frequency identification, is a technology that is now rapidly being developed by corporations and governments who see the possibilities and advantages of managing large bodies of objects. By seamlessly embedding an RFID chip into an object, it is possible to assign it a unique identification, allowing databases of specific item/location/relationship information to be generated, providing for real-time identification and tracking over the course of its life from cradle to grave.*

*The use of RFID in conjunction with database technologies allows us to understand a truly ubiquitous network, an Internet of Things, which offers up new possibilities in which our environment becomes a conduit of information transfer between people to people, people to things, and things themselves. This generates a new perspective in the way we view and interact with the Internet. No longer are we outside this mass of information, curating its content in a web 2.0 model of tags, keywords and trackbacks, instead we share the network with objects capable of communicating what they are, and what is going on in the space around them; active members of society, contributing not only to the social web, but also the physical world.*

**Keywords:** Internet of Things, memory, RFID, place attachment, social networks.

#### **1. Introduction**

The term *Internet of Things* refers to the technical and cultural shift that is anticipated as society moves to a ubiquitous form of computing in which every device is 'on', and in some way connected to the Internet (Greenfield, 2006). The specific term 'things' refers to the concept that every new object manufactured will also be able to be a part of this extended Internet, having been tagged and indexed by the manufacturer during production.

This paper examines whether RFID can unexpectedly become a new platform for memory storage, and transform inert objects into vessels that allow for the imprint of experience to be shared over time. It reflects beyond the logistical benefits of the technology, and instead attempts to identify the social benefits that might arise.

#### **2. Research Context: Why things matter**

Proust states that 'consumer goods aren't really consumed at all – but experienced, either in memory or right now, as key elements of identity itself' (1927 cited in Kwint, et al., 1999). In western traditions, objects serve memory in three main ways. Firstly they furnish recollection; constituting our picture of the past. Secondly, objects stimulate remembering, not only through the deployed mnemonics of public monuments, or mantelpiece souvenirs, but also by the serendipitous encounter bringing back experience which otherwise would have remained

dormant, repressed or forgotten. Thirdly, objects form records: analogues to living memory, storing information beyond individual experience (Kwint, et al., 1999).

Baudrillard (1996) discusses the capacity for objects to evoke memories within us and the complexity of the relationship between human and object, connoting the 'emotional value' objects take on; 'What gives houses of our childhood such depth and resonance in memory is clearly the complex structure of interiority, and the objects within it serve for us as boundary markers of the symbolic configuration known as home. In their anthropomorphism the objects that furnish it become household gods, spatial incarnations of the emotional bonds and the permanence of the family group'. He terms these objects *technemes*, items which consider not only their technical function but also the ideas, values, and fetishes connected to them, and describes them as being in a 'perpetual flight from technical structure towards their secondary meanings, from technological system towards a cultural system'. It is clear that memories are intrinsically linked with objects; time and memory are embodied or encoded in our perception of everyday things. Draaisma (2000) refers to memories as a 'store of precious items' and like objects they too have a lifetime, part of a persons own cradle to grave. The advancement of technology from development of writing surfaces, to photography and cinematography, Edison's phonograph and now a days numerous 'artificial' memories assist us in 'arming ourselves against the transience implicit in the mortality of memory' (Draaisma, 2000) by recording what the eye and ear take in.

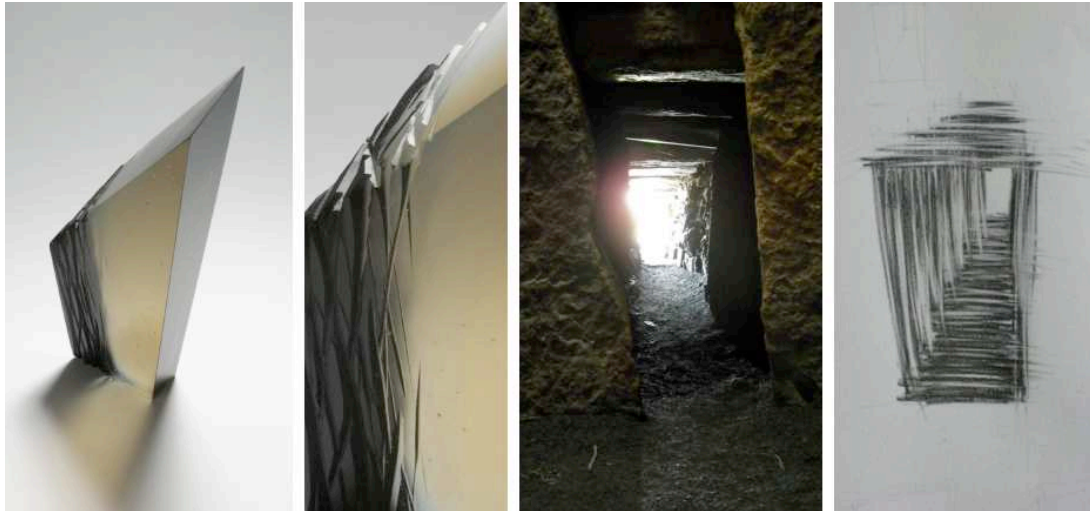
However the Internet of Things not only has the capacity to serve as an interface for human memory storage, it can store the memory of the object itself. Sterling (2005) terms these objects *Spimes*, made possible through the convergence of emerging technologies, related to both the manufacturing process for consumer goods, and through identification and location technologies. Technologies that allow us to track the entire existence of an object, from before it was made (its virtual representation), through its manufacture, its ownership history, its physical location, until its eventual obsolescence and breaking-down back into raw material to be used for new instantiations of objects. When recorded the objects can be archived and searched for, as databases of specific item/location/relationship information which track the lifetime of an object through space and time are generated.

By embedding an object with RFID and turning it into a node of the Internet where it has the capacity to have its own identity, memory, and awareness of its environment, we transform it from an inert thing into an agent capable of capturing information about the happenings in its surroundings and communicating that information with other object nodes anywhere in the world. Bleeker (2006) coined these things *blogjects*; objects that will participate in the whole meaning-making apparatus that is now the social web, and that is be-coming the Internet of Things. Bleeker suggests that 'things', once plugged into the Internet will become agents that circulate food for thought, that 'speak on' matters from an altogether different point of view,

that lend a 'thing-y' perspective on micro and macro social, cultural, political and personal matters.

### 3.0 Case Studies

#### 3.1 Camster: Sharing the narrative



*Fig 1. Camster (2009) Karlyn Sutherland*

The unique qualities and potent history of the Caithness landscape are a constant influence on the artists who visit the area. The work featured (Fig 1.) was developed by Karlyn Sutherland and based upon a series of sketches made during a recent summer visit to the Neolithic Grey Cairns of Camster – chambered structures considered to have played pivotal roles in ancient burial rituals. The darkness of the inner chamber contrasting with warm light along the ancient stones of the narrow entrance passage triggered memories of local myth and legend learned in the artist's childhood.

Regardless of the medium or discipline employed, narrative forms a central theme to Sutherland's work. Through exploring the relationship between form, light and colour, glass allows expression of those elements of experience and atmosphere, which could not be accurately described otherwise. This piece represents the memory, mystery and stillness of that visit to Camster; pausing a moment in time to evoke contemplation on the power of place, experience and cultural history on identity, whether personal or collective.

#### 3.2 The Memorable: Lybster

The Memorable is a research project that aims to engage with Baudrillard's notion that objects can transcend their material form and can become part of a cultural network, by allowing an audience to engage with memories and objects central to the identity of a particular community. Lybster, in Caithness, Scotland, was (prior to the decline of the fishing industry in the early twentieth century) famed for being the third biggest herring port in

Scotland. Recent times have seen its reinvention as a centre of excellence in glassmaking- the richness of the local environment, community and culture have all proved to be inspirational to visiting artists; many of the pieces created at North Lands Creative Glass are inspired by the environment – built, historical, cultural and natural- and reflect memories and attachments which have been formed. Object, memory and place have the ability to inspire creativity, and it is this close relationship that the research will investigate.



**Fig 2. Various works (2005) North Lands Creative Glass**

The majority of the pieces that comprise North Lands permanent collection (see Fig 2. For examples) can be read as a physical expression of both individual and collective memory and attachment, and could play a pivotal role in maintaining and acknowledging the history and culture of the area and its inhabitants. In leaving behind these interpretations and memories, visiting artists allow their pieces in turn to be read, perceived and remembered by locals and visitors alike. As important and evocative cultural artefacts, these pieces add a distinct depth and quality to the recording and expression of collective memory, and hold a great deal of potential as catalysts for attachment through triggering further associations for the viewer. However, the current collection only allows for a one-way engagement with the community; the audience infers the intended meaning of the work produced. Without the ability to directly store the intangible processes (collective memories, related attachments, dialogue, processes and social narratives) created as part of the artists' residency, the original meaning and relationship of these often abstract pieces would likely fade over time. The Memorable will combine RFID technology with the methodologies similar to those employed in *Camster*, allowing for a continued dialogue between the community and the artists. Transformed into vessels capable of revealing these complex relationships, the pieces will become readily and continually accessible to the social networks that they represent.



**Fig 3. Early Lybster harbour (n.d.) Caithness Community Web Site and Bayview Hotel**

The people of Lybster have been invited to donate everyday objects that have significant meaning and stories attached. In almost every household there are a selection of objects that hold significant resonance, and are already connected to an Internet of memory and meaning. An intrinsic human trait is the process of imbuing meaning onto objects so that they provide connections to people, events and environments. Artefacts across a mantelpiece become conduits between events that happened in the past, to people who will occupy the future. These objects become essential coordinates across families and communities to support the telling of a stories and passing-on knowledge. This association of memory to object will be recorded through a variety of interactive media, and these artefacts will then be passed onto a group of chosen artists. With minimal intervention or guidance, the artists are invited to create work which responds, represents and communicates their feelings towards the area and the artefacts they have selected.

Having spent time in the environments surrounding both Lybster and North Lands Creative Glass, the invited artists have an already existing connection with the area; the work aims to build upon and extend this relationship, tying together landscape, people, and object. In this way the creative output of the artists' work not only takes into account the residents of Lybster's reflection of their surroundings, but also that of the outsider, intertwining their instinctive association with place and identity. Commissioned as part of Annuale, the work is being shown as an interactive installation in summer 2010. The audience will be invited to handle the artefacts produced, triggering the original memories that formed them and projecting the recorded media into a gallery space. The project will be returned to Lybster (Fig 3.) and shown to the people who participated, with the aim that the artefacts produced will act as agents, creating and new associations and interpretations of the relationships that underpin the community, both on a local and national scale.

### **3.3 TOTeM: Tales of Things and Electronic Memory**

The Memorable project is located within a wider £1.3 million EPSRC funded research project, TOTeM which aims to provide a platform to allow memories to be attached to objects that

already exist in the world. The TOTeM project is concerned with the memory and value of 'old' objects. It has been suggested that people surround themselves with between 1,000 and 5,000 objects. Of those thousands of objects many of them are probably not truly cared for and end up in rubbish bins or in storage. But for every owner, in almost every household there are a selection of objects that hold significant resonance, and will already connect them to an Internet of memory and meaning. Through the use of objects as conduits for memory, TOTeM expects to nurture understanding and communication across generations, cultures and tribes that many aspects of technology are marginalising. TOTeM offers a culturally and economically radical way of supporting a 'memory economy' in an age when looking forward is beginning to get us lost.

#### **4. Conclusion**

When we think of the kind of social networks that the Internet facilitates, we think of human agents participating in an exchange of ideas, centred on meaningful topics, whatever they may be. Until now, objects and things have been conspicuously absent from this sphere of contributing to culture, which raises particular research questions as to whether networked objects can begin to express forms of social discourse through producing acts that take into account the actions and reaction, shaping the behavior of those it cohabitates with.

The important aspect of the Internet of Things is not that RFID and data transponders are now connected onto the Internet, allowing ever more complex and exhaustive instrumented machine-to-machine communication and data production. The significance of the Internet of Things is a network where it's not simply enough for humans to apply the context of the content and its meaning. As objects go online they are transformed from something that occupies space as an inert thing, and means you are no longer alone in the network; instead we see a real world where networked objects store and generate meaning for data, developing a semantic structure for the Internet which intensely maps the real world onto cyberspace in ever increasing detail. You will now share your environment with things that contribute information to the social web in the same way you do. Whereas the Internet of Non-Things was limited to human agents, in the Internet of Things objects are actors in the network; participants in the creation, maintenance and knitting together of social networks.

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# Content Management: the use of Information Architecture as way to structure the content assets

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## Abstract

Content Management is a strategic discipline that should support the information assets of a company. Although there are some technological instruments structuring this work, the methods has been used must have improvement to a better use. In this sense, Information Architecture, as a process that helps users to manage and find information, can collaborate with the organization of this assets allowing the best identification and categorization of information, as well as providing improvements in the Web site navigation (in Intranets and Internet). This article introduces part of a research that deals with the use of Information Architecture for developing and structuring the project of Dataprev about the Content Management for Brazilian Social Security System.

Keywords: Content Management, Information Architecture, Dataprev, Brazilian Social Security, Brazil

## 1. Introduction

The challenge in information and data management is increasing, as the speed in which it constantly grows and varies is extremely high. The scenery we have today is one of information and document boom – the Age of Knowledge Explosion (Gopinath & Das, 1997) - and it is impossible to go through this issue without approaching the elements which sustain the processes of work in the organizations (Davenport, 1998).

The information explosion has brought up extremely intense implications on the processes of management of the information assets of an organization (Lojkine, 2002). The use of Content Management is an approach whose aim is to reduce these implications and which has been used in organizations (Seadle, 2006). Casting an interdisciplinary look at the Content Management issue, it is possible to find one of today's deeply explored grounds in Computing: the use of technological instruments to administer information and documents by means of Content Management Systems (CMS) and Web Portal (Ribeiro, 2008).

The Brazilian Social Security System generates a great volume of data, with a variety of types originated from many different sources. In the present day, there is a monthly payment of

approximately 24 million of Benefits, with distinct Benefit Categories, each with distinct characteristics, demanding a differentiated treatment. This information is stored in very large databases and must be available to Brazilian citizens. In the universe of non-structured documents and information, studies point to a process volume of around 32,000 document movements per day, including administration processes, Benefit processes and other tasks. (Ribeiro, 2008). This article introduces part of a research that deals with the use of Information Architecture for development and structuring the project of Dataprev about Content Management for Brazilian Social Security System.

Finally, the acknowledgement of competence and value existing in enterprises and institutions depends directly on the efficiency of their information management. The building of a framework for the structuring of the information inside an organization is vital to obtain success in its management.

## **2. Use of Information Architecture to structure content assets**

Content assets are fundamental to the production of knowledge for today's society. The activities of meeting, selection, encoding, reduction, classifying and storing lead to stock organization and control for immediate or future use, always with the intention to help in the process of knowledge production. Information stocks are eminent parts in the composition of the value of content assets. On the other hand, Information stocks are static; they themselves don't produce any knowledge. This only happens when the process of communication between senders and receivers – going through the Information stocks – starts. Information needs to be transmitted and accepted as it is (Ribeiro, 2001).

With a growing use of solutions that make use of Intranets and Extranets for sharing and dissemination of information, it is observed that there is still a lot of effort in managing web environments of organizations. In this way the use of CMS tools and Web Portals have emerged as technological solution to solving problems originating in Information Management.

Some relevant questions need to be answered in order to view the building of a process of Content Management in an adequate way, structure its discussion and lead its development, as it is necessary to know, among other things:

- How is information flow?
- What information and classification process – taxonomy - is used by the users community?
- The whole information produced, institutional or not, allows easily that user stores and recover itself?
- How has been using structured information?
- How has been using non structured information?

- How has been using digital assets (films, vídeos, sounds, etc)?

At the beginning of the 90s, Benjamin and Blunt (1992) made a re-reading of the main predictions that they had made for the previous decade, and also new predictions for the next one. For a foreseeable future they pointed tendencies to: Technologies, Architecture and Patterns, Services, Investments and Economic Aspects, besides Processes for Appliance Development and Change Management. Among several of the appointed challenges, the most important one would be the description and integration of business processes and technological matters, which would be represented by an Information Architecture. This Architecture, besides justifying investments in IT, would be a bridge connecting strategic guidance to the new technologies.

In this sense it's necessary to use an trans-multi-disciplinary approach (Morin, 2004), thus the structuring of this important theme embraces several disciplines and gather different approaches, so much social as technological, that will be able to be materialized in an Information Architecture, among them (Ribeiro, 2008):

- Content and Context
  - Business Process Management Systems, Business processes re-engineering and Workflow;
  - The systems, chaos theory and complexity, the organizational behavior , change and learning;
  - The Knowledge management, artificial intelligence and knowledge-based systems;
  - Information and computer science, software Engineering, Librarianship;
  - Information Retrieval and domain analysis;
- Users
  - Communication and cognition, linguistics, psychology, sociology and anthropology;
  - Visual and graphic design, besides human-computer interface design;

One of the first steps towards establishing an adequate treatment of interfaces and content management is the assumption that those information objects deal with entrepreneurial assets. In other words, going from information to knowledge in the productive chain, these are the necessary materials to transform structures and to produce knowledge for humankind. In this direction, the Information Architecture assists all employees and institutions, so it should be observed like a help tool. As a matter of fact the Architecture design should be responsibility of all, once it is applicable for every type of information.

In the Web environment, it's possible to realize that the discipline is an extremely fertile and emerging ground supported by practice communities, with focus in developing the principles for the Project and to organize digital information assets. This structuring can be obtained with definition of key identifiers and navigation outlines to help the design of information and systems services. Besides that, Information Architecture needs to treat the structural information systems design, to facilitate its tasks execution and the intuitive access. Finally, it is possible to synthesize its definition like: The art and science of classifying sites web and intranets to aid people to find and manage information. (Rosenfeld & Morville, 2002)

To develop the project the next guidelines are being followed:

- Involve stakeholders and understand the environment, enterprise business process, goals and political context of the company, as well as to observe previous experiences;
- Integrate teams making the definitions homogeneous and consequently also homogeneously information architecture construction itself;
- If there are opinion differences deals with information reconciliation
- Develop the work breaking the subject complexity, dividing wide subjects into smaller sections;
- Identify the information assets (data, documents, images, audio, video, applications, emails, etc);
- Shape assets defining how it is used, its value and purpose;
- Build a Metadata Management policy, identify metadata and retrieval forms;
- Develop templates and standards to improve the data use;
- Establish a asset classification standard for each asset that has been identified;
- Improve the project team introducing new professional skills to treat the information assets;
- Explore the possibility to develop a taxonomy to work these concepts and the existing synonyms, besides controlled vocabulary, field domain, hierarchy;
- Create a conceptual map to exhibit graphically these categories, as well as the existing relationship among the categories;
- Identify roles and responsibilities and evaluate web sites constantly;
- Announce constantly the work that is being elaborated;
- Do constant technological reevaluation of the tools used; Make benchmarking and observe market evolution and trends;
- Frequently Planning processes and executing tasks to monitor the use and to improve the quality (web mining, text mining, survey, questionnaires, meetings and interviews);

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# Extended brains, global villages and semantic webs: Material metaphors beyond discourse

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## Abstract

*While the advent of the Internet in the 90s of last century was accompanied by discourse metaphors as electronic highway, frontier and cyberspace, contemporary Web 2.0 discourse seems to be void of such explicit metaphors. However, when scrutinizing the way current issues about network intelligence are framed, two main organizing metaphors can be excavated: the metaphor of the extended brain, and the metaphor of the global village. In my presentation I will show how these two metaphors, both coined long before advent of the web (Bush 1945, Licklider 1960, McLuhan 1962), still inform and organize popular and academic discourse on ICTs and their implicated societal and cultural transformations. In their current appropriations in debates about collective intelligence these metaphors get blended in a hybrid brain-village concept. Yet, in the controversies on 'the semantic web' they seem to diverge into separate directions, respectively into an 'ontological brain' perspective, and a 'cultural village' perspective. While these metaphors definitely can be considered discourse metaphors - metaphorical concepts that organize and frame language and thought - I will argue that these metaphors also function as material metaphors (Hayles 2002) that enable, organize and constitute performative acts and social alignments.*

**Keywords:** metaphor, semantic web, search engines

## 1. Metaphors of network intelligence

Since the 80s of last century metaphor analysis is gaining prominence as an academic field beyond linguistics, ranging from philosophy (Lakoff & Johnson 1999, Cazeaux 2007) and anthropology (Tilley 1999) to ideology critique (Lakoff 2002, Goatly 2008). In the emerging disciplines of new media studies and web studies the role metaphors play in popular and academic conceptualizations of especially the Internet has been recognized from the start (Stefik 1996, Gozzi 1999, Gunkel 2001, Wyatt 2004). Marked by the excitement and concerns surrounding the emergence of this new medium in the 90s most analyses focused on classic discourse metaphors such as electronic frontier, electronic highway and cyberspace.

Today, on the turbulent shores of the still rolling Web 2.0 waves, such explicit metaphors as discourse organizers seem to be absent (except, of course, for the metaphor of Web 2.0 itself, though this one is hardly recognized as metaphor, see Van den Boomen 2007). Assuming that Lakoff and Johnson (1980) are right in their assertion that all talk, thought and action is organized by basic metaphorical concepts, we can infer that the organizing metaphors of what is at stake on the current web have gone undercover. Fleshing them out may shed new light on contemporary web discourse, in particular when it comes to current issues and controversies regarding the status and politics of search engines, the social-technological assemblages as produced on social network sites, and the efforts to develop a more 'semantic web'.

Different as these three issues may seem to be, they share a discourse and, as I will argue, they share metaphors. This discourse is framed in terms of intelligence, either located in machines and software (artificial intelligence, semantic web) or in the collective of users, as exemplified in concepts such as collective intelligence (Lévy 1997, O'Reilly 2005), wisdom of the crowds (Surowiecki 2004), and tagging folksonomies (Smith 2008, Peters 2009). The contemporary desire for extended and externalized intelligence and semantics marks a relatively new stage.

With an emphasis on relatively - after all, the imaginary of external (and even extraterrestrial) intelligence has a long standing history that may be tracked back to the origin of religions. And even when we restrict the idea to artificial intelligence, the history is much older than the Internet or even computers. Yet, the imaginary of external intelligence - either performed by autonomous machines or in cooperation between humans and machines - has gained a new momentum in contemporary Web 2.0 discourse.

### **1. *The extended brain and the global village***

In this discourse of web intelligence two basic metaphors can be excavated: the metaphor of the extended brain and the metaphor of the global village. These well known metaphors has been coined by Marshall McLuhan (1962, 1964) as indicators of what electronic media would bestow on humanity: an extension and externalization of all the senses and the nervous system, an electronic brain that will sweep humankind from print-induced individualism and fragmentation into a collective yet tribal global village.

Though McLuhan was a champion in inventing catchy metaphors, he was not the first to invoke the brain metaphor in relation to information processing technologies. Vannevar Bush's (1945) envisioning of the Memex, widely heralded as the forecasting of hypertext, was based on the brain metaphor as opposed to the library model. His device did not work with library models of indexing, storage and retrieval by 'tracing it down from subclass to subclass' but 'by the



association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain' (Bush 1945, 6). Fifteen years later, Licklider (1960) went a step further, by pointing out that mechanical extension of the human brain will give way to a complete symbiosis between man and machine:

The hope is that, in not too many years, human brains and computing machines will be coupled together very tightly, and that the resulting partnership will think as no human brain has ever thought and process data in a way not approached by the information-handling machines we know today. [...] It seems entirely possible that, in due course, electronic or chemical "machines" will outdo the human brain in most of the functions we now consider exclusively within its province' (Licklider 1960, 4).

Despite the emphasis on individual organic symbiosis, it should be noted that Licklider was also the first to notice that practices of human-computer interaction would lead to 'the development of interactive communities of geographically separated people' (Licklider & Taylor 1968, 30). Though at that time only 'half a dozen interactive multiaccess computer communities' existed (Ibid.) the idea of virtual communities - informed by the metaphor of the global village - has been there long before Howard Rheingold (1993) coined the term. When the Internet became available for ordinary users during the 1990s, the idea of the global village, whether as unity or as tribal warfare between communities, became sticky as a metaphor to understand, design and organize social-cultural practices, as well as a way to develop business models.

In my presentation I will show how the metaphors of the extended brain and the global village nowadays still inform and organize popular and academic discourse on ICT, new media and the implicated societal transformations. Recognizing the metaphors at work in this discourse enables us to reveal problematic assumptions that frame and guide the directions taken - in discourse, but also in politics, in design, and in usage. In that regard I argue that these metaphors are not just discourse metaphors, but that they also function as what has been dubbed material metaphors (Hayles 2002, Ray 1987). Such material metaphors not only frame discourse, speech and thought, they also enable and organize performative acts and social alignments.

## **2. Contemporary web discourse informed by brain and/or village metaphors**

Though related, the metaphors of the brain and the village constitute different diagrams of nature and society, immanence and emergence, whole and parts, determinism and construction. They do so by foregrounding and downplaying different aspects. The brain metaphor mobilizes primarily an imaginary of organic unity, nature, immanence and determinism; the village

metaphor primarily mobilizes images of small elements that collectively create structural patterns by rules of interaction, emergence and social-cultural construction.

However, even as extreme positions both metaphors can assemble and mobilize different clusters of qualities. The brain metaphor can be assembled as a strictly bio-chemical disembodied 'brain in a vat', but also as an embodied, plastic entity, developing socially and culturally by interaction with the environment. The global village metaphor on its turn can be assembled as a global unity and infrastructure, but also as collection of tribes, communities, and social networks. It may invoke images of fragmentation, war and conflict as well as clusters of cohesion, whether as publics or as issue networks.

In my presentation I will discuss the following claims:

1. The history of search engine technology can be described as a shift from the library metaphor (indexing by categories) to the village metaphor (mapping and ranking based on social-technological traffic and hyperlinks). Users, however tend to conceive search engines as a brain-machine (not an index, not a map, but an autonomous self-organizing thing). The recent trials towards more semantic associative search engines (Bing, Wolfram Alpha, ANNH) is based on the brain metaphor.
2. The debate on the semantic web is marked by three positions: an affirmative position that departs from an ontological brain metaphor (Berners-Lee 2000, 2001), one critical position based on a social-cultural village metaphor (Cramer 2007, Shirky 2005), and a hybrid position that seeks to reconcile or blend the brain with the village. At issue here are the relations between ontological taxonomy, semantic associations, and practices of social-cultural tagging by users.
3. The relation between source and target of both the brain and the village metaphor is one of mutual co-construction and bi-directionality. Insights from brain science and social-cultural 'village' sciences inform and transform the use of metaphors in discourse, which on their turn backfire and inspire further research and cultural praxis.
4. The concept of network - be it social network or technological network - is unstable and ambivalent. The concept is sometimes derived from the brain metaphor, sometimes from the village metaphor, sometimes from a blend of brain-village. Remarkably, these three metaphorical positions do not correspond with a neat division in social versus technological networks - in one and the same text, describing either social or technological networks, glidings and oscillations between the three metaphors can be found.

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## U-rss in Mexico 10

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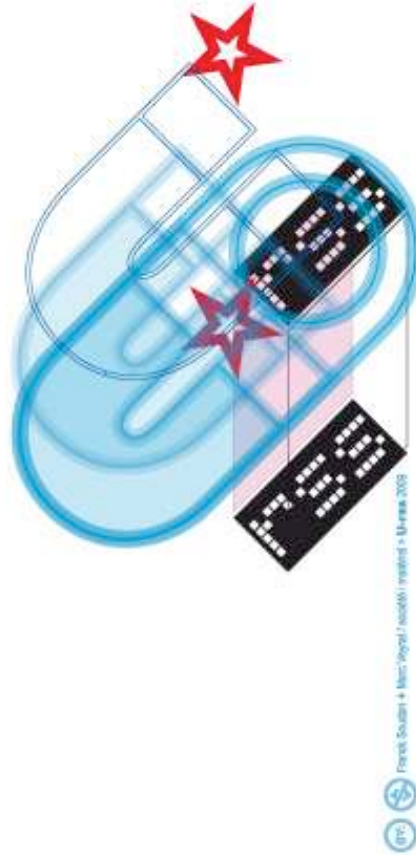
*There is no other reality than that secreted by the simulation models ".*

*Jean Baudrillard, De la séduction, Éditions Galilée, collection Folio / Essais, Paris, 1979, p.23.*

### Abstract

*Our consumption is mainly related to (re)cognition - and a large choice - of signs associated with products. These choices of signs - easily readable without language barriers - build, plan around each of us an information system (a customized i-media language or what we might still call a social portrait?) that we share in conversations held with (and through) our network. In U+i trust: in you I believe I (like I information). The idea with U-rss is to shape these forms of language from a social network: Facebook, through a machine vision (to borrow a term from Paul Virilio) ; A new perspective to be canvassed without border: Google Earth.*

### 1. Introduction



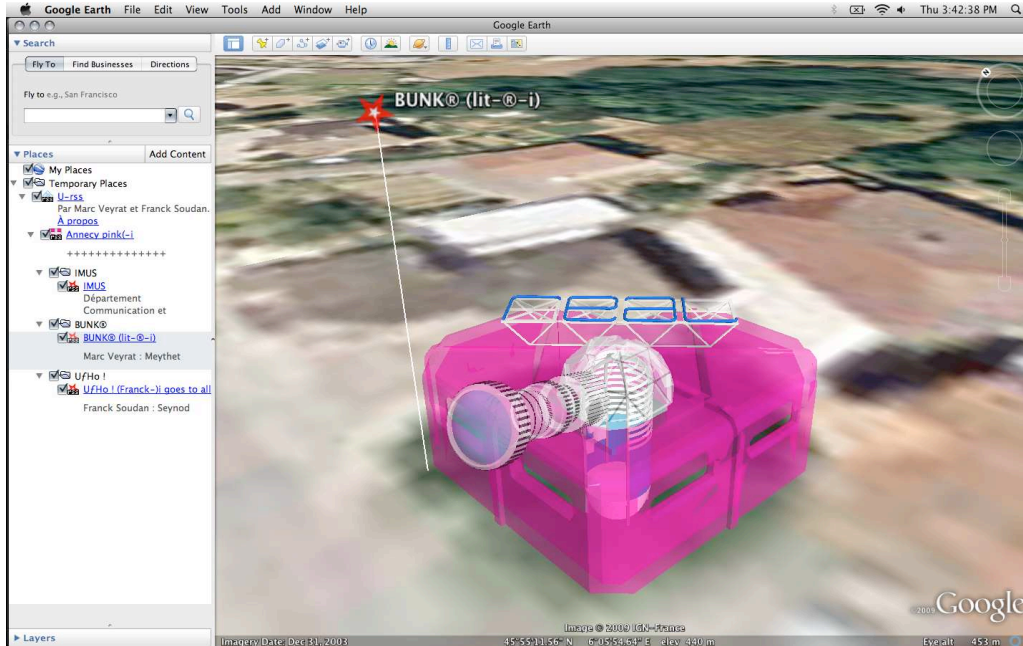
1. **U-rss logo, Franck Soudan + Marc Veyrat, 2009.**

We are currently developing a project called **U-rss**. This project allows setting up what we may call a layer of social portraits, superimposed in fine to Google Earth. This *joint program*, always focused around a specific territory is applied here in Mexico City and Toluca. With a group of students and teachers of the TEC of Monterey, we would like, during a whole week, to create a language of signs and shapes understandable by all, generated regardless of the nationalities or language barriers. This creation will take place in two stages. Firstly, several signs - we could define as "i+D/signs"<sup>ni</sup> - will be extracted and reassembled according personal walls created on Facebook, where a program will analyze cultures, the different observables areas of play and sensitivities of each. This set of signs, allowed by *mutual agreement* by all participants in this project, then will form a panel of tools or instruments to be able to communicate together. Then, in a second step, these signs will be organized, processed to give rise to what we might call *modular architextures* (index signs = *in/signs*). Built in 3D, these *architextures* - real social portraits in the equivalent of *in/signs* that are resulting from indices, collected information, themselves summarized (compressed?) using *i+D/signs* - will be visible on Google Earth and instantly legible from RSS feeds. Mexico City (founded 1325) condenses both the old and the new world. All the cultures and hopes of change explodes in the capital of Mexico that stretches

and grows at an unrestrained rate on a plateau at 2 250 meters. Third city in the world behind Tokyo and New York with more than 20 million inhabitants, this extremely dynamic metropolis is also facing the typical problems of overcrowded cities that attract every day new entrants: pollution, population explosion, the saturation of communication channels, crime and corruption ... In this original context, the filtering parameters made from Facebook to build *i+D/signs* on **U-rss in Mexico 10** will allow us to update and gather particularly rich and interesting criteria, which will overlap this field of study using Google Earth.

**U-rss in Mexico 10** will produce new forms built *upon, in between* existing forms. This project is associated with the fundamental idea that in seeking to transform the way we design, publish and share content on the Internet, we inevitably offer new forms of identity, defined by social logics directly associated with web users and the ability of machines now producing quantifiable and interconnected data. In this idea of "semantic web"<sup>iii</sup> it is therefore here to review our personality from the intersection of two points of view that seem both contradictory and complementary: Facebook and Google Earth. While the former proposes a formatted structure where we expect to slip in order to build a tribe - in which we may at any time lose ourselves through a frenzy exponential relationship - the second gives us the illusion of zooming from the collective to the singular, from global to local levels, to focus somewhat on a form of progressive *re-fold* (« re-pli » in french) to the particular, a dive-shaped whirlpool with focus in the private space, a bit like a snail retracting itself to the bottom of its shell. But three other parameters in this art and research project are still important to emphasize: first, how to redefine the concept of reality through the device of *re-presentation* where the image's (the social portrait on Google Earth) image (the set of *i+D/signs*) of the image (the Facebook tribe) does only stress that successive overlapping of *simulation models*? A second line of approach will inevitably asked the role of "i-negotiation"<sup>iiii</sup> to implement in this work since it is a constant confrontation (conversation?) between a program and studies... of visual anthropology? Indeed if an initial scan of the Facebook wall's tree is done automatically by a program, this scanner is then *modulated* (corrected?) by the play of *i+D/signs* to the interest of certain elements that would - for us or the user's wall - have to be *overstated* depending the automatically generated links in the tree... Finally it is important to notice the rhythm of *in/signs* - and then the construction (the invasion?) and conservation of the 3D modules on Google Earth - which is associated with information gradually but also temporarily left on Facebook. The work is constantly evolving, so... a bit like a melody of "Free Jazz"<sup>iv</sup>, in which a musician would (re)interpret a known score to adapt it according to his individuality, his temporary immersion in a social body. Thus, **U-rss in Mexico 10** develops several recurrent issues raised by the sometimes-ambiguous relationship relying arts, science and technology since the advent of the Internet.





2. *U-rss, BUNK® + ©box-2, social portrait (simulation), august 2009.*

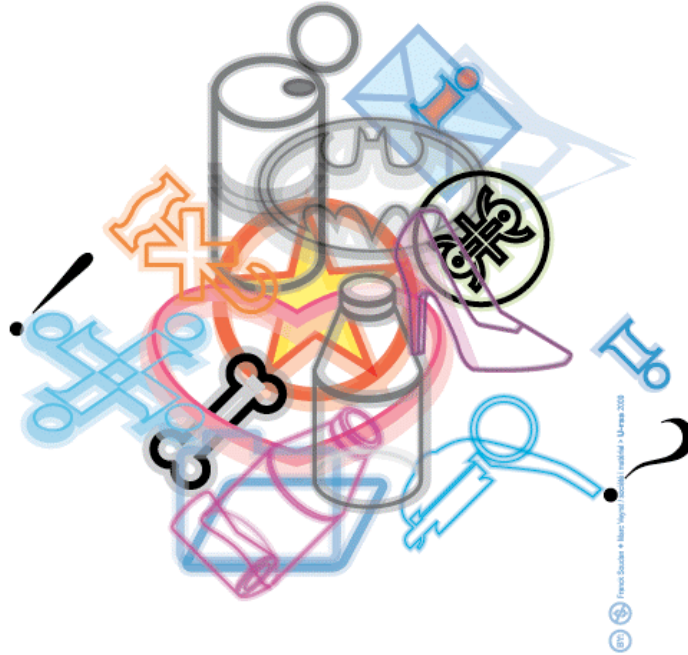
## 2. Conversation: the spring principle.

It is interesting to note that the *Spiral Jetty* by Robert Smithson (1970) "which creates the experience of a constant shift"<sup>v</sup> perfectly sums up this idea of a double point of view put to the test in the proposed **U-rss in Mexico 10** project. With the work of Robert Smithson, paradoxically, when a person runs on the pier to the center of the spiral, it moves away from the shore (which might seem, to it, to mark the *boundary of the land*). But the more it approaches the center (thus theoretically: the idea of having traveled the farthest *on the water*), the more the concentric rings of the pier split it from the lake... Similarly, in **U-rss in Mexico 10** project, if the recovery of a constant mass of data on Facebook inevitably produces a social portrait from a set of important inter-community connections (the tribe of the verb *be*?) and somehow determines the avowed desire of a view outward opened, this transformation of *raw data into corrected data* then *i+D/signs* (gathered in *in/signs*) seems *a priori* attached to a result inversely proportional to the programmed investment: a continuing interest to assert its limits. The experience is similar to that described above with the *Spiral Jetty*. What happens when you leave yourself? The hypothesis is to consider the duality between two points of view apparently contradictory but necessary. This hypothesis can be summarized by one simple concept: the *spring principle*. On this idea,

*relational design* set to work in **U-rss in Mexico 10** requires us to suggest that the development of a dialogue with the Other invariably seeks to build a *private space*, only visible within its permeable boundaries... Thus, this *conversation* between the Facebook *wall* and Google Earth, we would be inclined to initially think as the *necessary appropriation of a new living space* - Internet - would be able to build all one the eyes of others and policy of an *ego identity*. It would gradually composed the bricks of an autonomous subject, *I sentinel* posted *in secret under all* who would define his *elastic limit*. And the *i+D/signs* would be witnesses of this essential balance between tension and elasticity. These limits make, perhaps *anticipate* the indeterminacy of language or vice versa, mark intersections; *signal* nodes networks from a social *ego* outward opened... The *process of distancing* which consists to put words, then shapes, built on relationships with the Other, around the manufacture of *modular architecture* on Google Earth, can no longer be regarded as *a simple narrowing of that initial opening will* started through Facebook. The *social portrait* marks a temporary elasticity limit. As a *focal point* (superimposed to the Google Earth texture), this social portrait is located on the optical axis of a lens: the metaphorical meeting of the Other. But if like him it focuses light rays - each factor is the culmination of a relationship, a language link deliberately transparent and cross-community, constructed from *i+D/signs* - it is only possible in the development of this process of constant back and forth between the opening and closing of this lens.

Jean-Louis Boissier writes about the work "Five Into One"<sup>vi</sup> of Matt Mullican: "The virtual here is neither a representation nor a simulation, it is the projection of a mental universe topology. In this sense it has the consistency, the concrete presence of a raw object, strictly artificial, shaped as a map project, without a map of any territory"<sup>vii</sup>. The correlation generally drawn between public and private space, experienced here through **U-rss in Mexico 10**, has to be interpreted in the sense of a *Weltanschauung* (worldview). It is first and foremost a matter of speech: a reversible conversation. This one – theoretic here because always linked to language - produces the opening to the Other, organizes, arranges *its own mental territory of identification* by the use of essential filtering devices. These devices are many levels of interpretation needed for this speech to solidify, *to sediment*, to close itself gradually so it resembles a *shack*. Because "virtual worlds, as generally devices of digital interactivity, remains within the partition, an art of interpretation"<sup>viii</sup>. In **U-rss in Mexico 10**, the transition from the surface – of *i+D/signs* – to the simulation of a 3D volume takes place in three acts. Everything starts with the information originally reported on Facebook, which are then analyzed and transformed into *i+D/signs*, and last modeled in 3D... before being placed on Google Earth. **U-rss in Mexico 10** becomes a bit like the *Rosetta stone*, a collection of words and images where three languages (the same text) coexist with an *i-negotiable phenomenon*. By stepping into **U-rss in Mexico 10** (and in general with the whole **U-rss** project) and by the use of this *i-negotiation*, we may attach in some way, the *Google Earth*

*territory* to Facebook walls with *language springs*. We are here far from a simple "informational acupuncture"<sup>ix</sup> set by Maurice Benayoun: the tattoo operation *designed* by his successive implants - springs of language - on the Google Earth platform *virtualizes* it.



3. *i+D/signs vocabulary, Franck Soudan + Marc Veyrat / société i matériel, 2009.*

### 3. Construction: i-Negotiation

The *i-negotiable* (tradable information) is a generic term we use to describe the conversational process, the exchanges of contents. This term points the processes that engage actors in the discursive relations they maintain towards a resource or any piece of mind, that need a construction of its own legitimacy in order to exist, whether it is an intellectual, strategic or simply social one. This fundamental principle can be stated as: "The information has always displayed a price and delivery entities have always been able to exercise the right to influence its rate"<sup>x</sup>. Information has this inherent quality, an easily corruptible, playable rate that allows media spheres to exist; cost of information seems to have even formatted logical media technology, from their hierarchies to their routines. The analysis of this business obliges us to describe the whole set of players who can play a part regarding their influences on the information rate. In the pre internet era, so when dealing with traditional media, we can consider that the technology actors, the transient channels, exert a relatively little influence considering our problem, the price of information seems to be mostly modeled, constructed by organized human agents. In these systems, regulation means a lot, and the act of piloting information, their switches from one to another is governed by an organization (an institution in most cases) highly hierarchical thought. In this case, if the current (stock) of information sees his stock raising, it is relatively easy to trace

the chain of transactions that have granted its final value because the players who made this latter are easily identifiable. This principle is also sufficient to explain the archaic systems of knowledge transmission, especially when it comes to societies based upon spoken words. In a science fiction book as *Grande Junction* by Maurice G. Dantec<sup>xi</sup>, the archaic regression of information's distribution systems is based on deregulation of these latter. We are in 2060; in an information society, which has seen its distribution organisms gradually technicized until every human is connected through bionic implants to a central machine. The plot of the book resides in the intrusion of a computer virus, bugging the central machine and making every little digital object perfectly mute. This gigantic bug, called *the fall* in the novel, lead each human to a non-sustainable use of language, oral transmission so. Dantec then describes very well this society of informants, organized as a network of dealers whose main product is information itself. Thus there are small dealers, traffickers and barons finally, the last links in a chain where each branch contains players who try to take profits (trading) of information they provide the transmission for. It is interesting to note that the life of all human kind depends on the goodwill of these barons, in the information they allow to be traced.

However, if we want to talk about the *i-negotiation* over the Internet and more particularly in the use **U-rss** project *in Mexico 10* proposes to do with Facebook, we have to say a few words about this *web social service*. The high-tech platform requires us to include algorithms and programs as influential actors, acting in the negotiation process. Decision-making entities that are decentralized, fragmented into a network that has increased the amount of trading places, so that each user can shape an informational sphere of its own, according to his will, that he can access all resources the world knows, does not alter the fact that computer architectures operate with varying degrees of aggressiveness, influence and change the access to information. Quite the contrary, it's the very existence of these programs that made possible the emergence of this new paradigm the Internet media is. If hierarchies are no longer visible in such systems, or, to quote Castells, if we went from a "space of places" to a "space of flows"<sup>xii</sup>, it's not so much because the Internet is profoundly ubiquitous (trading eras moving at the speed of light until they become a stream), but because technologies and programs drive the streams. It is necessary to identify these programs, their influences and their possible corruptibility. Coming back to Facebook, the geometries of the platform are so complex that we are actually unable to emulate our model, without talking about the inside mechanisms of features such as *I like it*, suggestions, groups or fans and what they involved. Information that is negotiated with the algorithmic logic of Facebook on one hand, with members of our network and the other, and corresponding to the digital identity of the user, presents such permeability towards actors (technological or not) with which it passes, that its rough edges make it elusive. The malleability of the web forces us then to find any material picture [Bachelard 1947] capable to stimulate our thinking. Very influenced by the

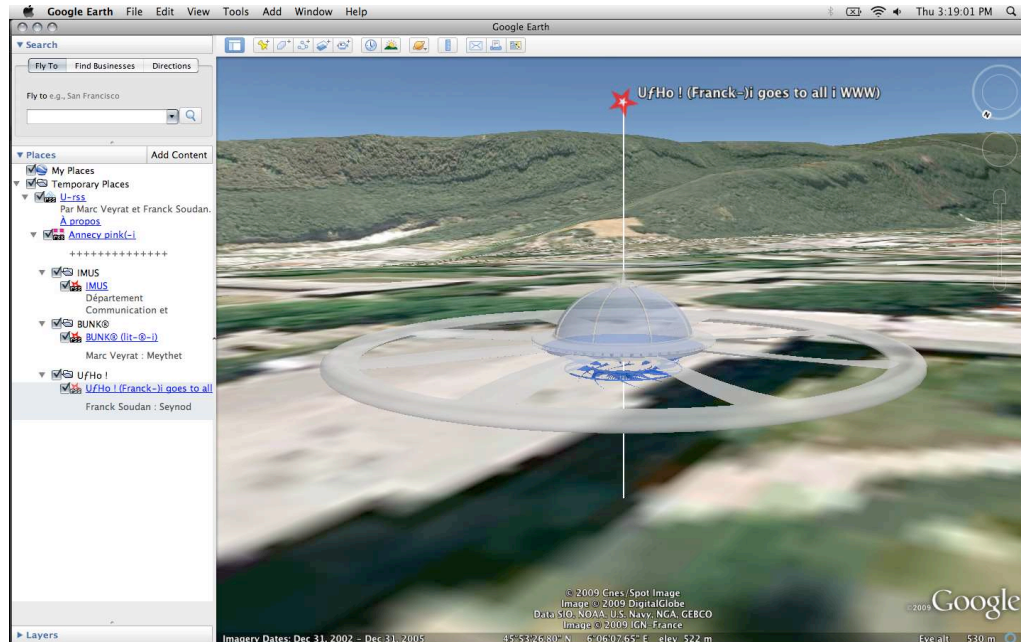
thought of Peter Sloterdijk and his trilogy *Sphären*<sup>xiii</sup>, Bernhard Rieder proposes the metaphor of digital dross to designate the *social web* and its impact on the interactions between web users. Most interesting in this article is the concept of membrane both filters and interfaces of a bubble containing the original identity equipment, constantly subject to intrusion. "The bubble must stay away from others but its extension inland (identity or *home of meaning*) depends on the production of such other space of their *own*. Our identity must occur by both relationship and isolation, or - to speak in Bourdieu's terms - the game of distinction demand that everyone plays it."<sup>xiv</sup> (14)

Under the project **U-rss in Mexico 10**, we retain the concept of membrane as the (none) place of our experiment, space exchange (of flows) which build relationships between members of a shared network. The importance attached to walls (membranes) of net surfers is not to be looked in the exchanged contents but in the vibration of the latter, in the relationship of its owner with its network of friends and programmed tools of Facebook. This is not so much from a qualitative measure that the project was born, but from a measurement of time, based on a rate, leading to a musical score on which would be written the digital identity. Research by Bernhard Rieder and more generally *marine ontology* or the *aqueous lexicon* developed by Peter Sloterdijk is an interesting basis for considering the report that information and algorithms maintain in such interfaces. On this membrane, we do not dwell on contents, or even on hypertextual qualities within them, but on their origins first, their liquid state then. Thus, activity of the *wall* can be segmented according to the origin of the interface trace it draws:

- 1 – Algorithm activity: all jobs generated by the system itself, traces of an activity outside the wall: *I* and one Other are now friends, *I* is a fan of ..., *I* joined the group ..., *I* commented link ...).
- 2 – Author activity: posts on the wall by the owner of the latter (role of images and hypertext links).
- 3 - Network activity: post by others, comments, spontaneous interventions.

These scraps of identity can then be classified according to their liquid state. Except for the fossil record - corresponding to the *administrative profile* of the user, an indelible mark as the owner's name of the wall and all the profile information linked to its tangible existence (address), or to its other physical communication tools (telephone, mail) to retain only information on the wall - we can measure the liquefaction of information, its degree of permissiveness. It remains ice if it does not cause reactions, it tends to ice if the reactions are removed, it tends toward liquid if it causes reactions (quantitative approach), it tends to gas if the reactions have some form of wealth (qualitative, social approach: rich network, information is reviewed by a lot of different friends,

themselves posting personal resources to other hypertext). This kind of report to the membrane is selected for **U-rss in Mexico 10**, report that can be envisaged in terms of interface by the extent that this net (*network*) retains or misses, delete or rewritten.



**4. U-rss, UfHo! (Franck-)i goes to all i WWW, social portrait (simulation), august 2009.**  
**4. Conservation: i-Documentation**

**U-rss in Mexico 10** provides several computer programs developed in AS3 and to perform certain tasks with respect to the Facebook API. Applications are available on the Facebook platform itself and it is therefore possible to operate them. But they are mostly associated with the development of two important protocols:

- A documentation playing the same role as the cartel of a material artwork, explaining the ontological conditions and uses of this program in terms of a plastic concern.
- A book of rules defining the limits of acceptable uses for the particular program and any contributions to the **U-rss** project in general.

The programs offer shortcuts to perform tasks such as scanning posts of a wall, retrieving images from an album, search by keywords, etc. The source code for these programs will be documented and made available for everyone. The progressive development of this toolkit may be, as usual with most open source projects, augmented by contributions from other artists, either by modifying the source code of existing applications or by providing new applications. The purpose

of this part of the project is to involve various artistic actors who do not necessarily possess the technical knowledge about the use of open source projects. Documentation for a program, although it may be offered in a traditional "Javadoc"<sup>xv</sup> format, will have to be associated with a plastic, aesthetic and theoretical discourse, supporting the creation of the latter as it was developed with an artistic process in mind. Documentation for these programs is then proposed as an alternative reference to the official API ([Application Programming Interface](#)) of Facebook. It means that there will be no question of relationship between functionality and algorithmic vocabulary<sup>xvi</sup> anymore, but between possibility and artistic problematic. From the Facebook's API, some terms will be extracted, referring to very specific methods to achieve what might be called a paradigm of the *existing digital*, track that can combine several possible methods but must make sense as artistic possible inside **U-rss**. We are then facing a distinct material of the Facebook API, an interactive language-specific project. The goal is not to develop an efficient, functional API, but to offer entry points for the uses or developments of applications, thus making clear data used and to truly work, make art. Thus, two main branches are created in this documentation:

- The institution branch, designating methods and pointing applications that could be of interest for an institution on Facebook.
- The artist branch designating other methods and applications of interest in an artist's personal approach.

In addition, to allow insertion of projects brought by other contributors, creators of the project will offer a book of rules that one must comply. This book depends on the game levels to which the contributor wishes to submit (*transparency of inclusion*) and a classification of the action/shape dialectic (*reminiscent of the universal form*): action on Facebook and shape in Google Earth. Two rules are however necessary to thin the transition between the selected actions reserved for the development of the social portrait and its translation into a visible shape (*in/signs*) on Google Earth.

### **1. Transparency**

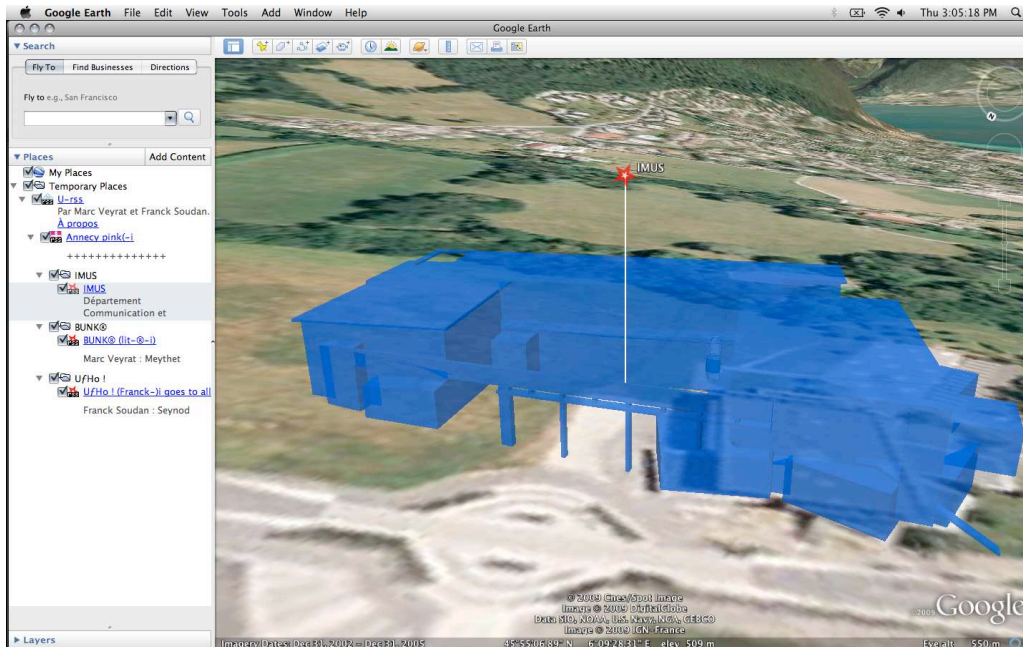
The concept of transparency is selected here to explain the report that levels of implications (gray, pink, red) will maintain with the interface. In a transparent relationship with the production of social portrait, there are no other interfaces than the Facebook platform one. An application is developed through the contributor's (the artist or the institution) will; he then installs it on its own wall. The latter merely to extract information that the contributor deems necessary, depending on his goal and how he thinks himself on networks, not even if other contacts are made aware that their contributions are used elsewhere. It is the gray level, the spy in the belly of Neo, who traces, agglomerates and translates the information on Google Earth. The pink level corresponds to the

setup of an application by other users, which provides additional information, more sensitive; the spy eventually ends up to present some kind of *ubiquity*. The interface remains unique, it is still the Facebook platform one and the essential operation of translating the data into shapes (*in/signs*) can work without the use of an interactive interface. It is the contributor who programs his algorithms, to develop a hidden relationship in his action/shape dialectic. So far, there are no other interactions on the social portrait that those provided or authorized by Facebook. The red level involves the outsourcing of selected resources on Facebook in an intermediary such as a database. The artist then proposes an interactive artwork so that the raw data extracted from the API are in the game, offered to corruption. The red level deepens the relationship with the digital identity and would, through the creation of an intermediate interface, give a hand on data so that an entire private segment slips into public space.

## **2. Shape**

In the same way as we faced given solid and / or liquid data, we are facing fossil or sandy *in/signs*. There are specific actions on Facebook, for example *I like it* that could lead to fossil, binary *in/signs*, planted around the module and there are sandy *in/sign* evolving such as reviews or measurable information we can extract data involved on the site, the magnitude of the *in/sign*, its altitude or its opacity, its value against the module, its value short ... The *Fine Arts classification* of Etienne Souriau [Souriau 1920], *colors / stamps / emotions* chart of Kandinsky can then show a great utility. The whole being is to identify the relationship we have with our digital twin and network. Some play on the concepts of private / public space, thus playing on a veiled / hidden report, others measure the value of information (useful / useless), so the more an information they share raises reviews, the more their ego inflate, the more the spiral that draws a module extends. It may also play on a different axial relation. The inclusion of a third dimension to the way on Google Earth also allows a glimpse of a different relationship in terms of *inclusion*. The *in/signs* may develop on a horizontal plane (x / y) so they create a kind of forest, or on the z axis according to the depth with which the contributor appears on Facebook.





5. *U-rss, IMUS + ©box 1, social portrait, société I matériel, august 2009.*

## 5. Conclusion

If, as Jean Baudrillard pointed out in the 70s, meaning took precedence over the signified, then the verbal or visual symbols that represents things and real objects are detached from their referents: they are referents. Not only the images replace the real but also they *define* this real. Thus, we do consume neither objects nor situations, but the meaning of these objects reported in situation: we consume information. In any presentation space (or exposure space), if the context changes the perception of the image, it is especially the *re-cognition* of it that has already changed the perception of this image stored in its context. With information, the boundaries of territories *settled* by successive codes or signs articulate our progress. We are both *eyes on the dish of real*. The reality becomes the reported reality in an area that is perceived as an area only because it is appointed. And this space should allow us to collect all the layers of construction, *i material distance* (the distance made by the information material) between material signifiers, structure and meaning of these joints. But with **U-rss in Mexico 10** other issues also seem to point through the intersection of these two platforms: Facebook and Google Earth. The coefficient of *proposed reality* suggests immediately a doubt about the *visually observable*, through technology. With Facebook & Google Earth - even if the latter one has implications with observable reality: for example the real presence of the ©box and the IMUS - the confrontation of two nested observation process suggests a *réalité* (actually a *temporary and partial reality*), while integration of digital 3D elements (*ingredients?*) on a programmed system but which thinks itself

photographed (Google Earth) also disrupts the readability of the system. Finally, does this project can then be regarded as a *prism*, a (*no*) *place*, or simply the *place of language*? To see through; all the richness of this (*false?*) crystal, while depending only upon the choice of ingredients, work plan and statement of the recipe... In **U-rss in Mexico 10**, if the physical location that is central to the project is fundamental, it gradually dissolves in its digital identity. During the *invasion* of a geographical space (instead of a physical building) - in this case on the image of Annecy-le-Vieux - with any module (e.g. the above IMUS that hopefully will itself be invaded by players), it is not with the architecture of the latter that it is speech about, but on how the institution or the individual who is living in the ability is able to produce (digital) *i-real*. This digital report seems to present two interesting points: the content is intended to position the institution or individual with respect to the norm. This means that a difference can be measured depending the hosts of the place and if all these productions are linked to the existence of a physical territory (a building, a place...), these production operations of information (i.e. communication) probably correspond to *operations of deterritorialization* (Deleuze). In other words, this digital forces us to reconsider the existence of the territory as an *open source* program. What does that mean? Perhaps an idea, a thought or an event that produces any *i-real* is never a collaboration around a shared real. In summary, if **U-rss in Mexico 10** is really based upon the share of a real: U is MY @lf-real friend, with the source of this event, our voluntary presence on the landscape of the Other is only a crystallization of elements that become meaningless when shared by a form of universal language, somehow a joint program...

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i These common signs, which we call *i+D/signs* are not simple translations of words. These are cuts of information using recurrent signs (e.g. the *i* of information that any person intends as a signal), resulting from clues left by the use of certain words, their circumstances, their positions in a message on the wall of Facebook ... These *i+D/signs* are used to intentionally cause interactions between words, colors and objects.

ii "*How such systems will they live, and when they will begin providing meaningful answers, begins to be the topic of many researchers and experts.*" says John Markoff for the [New York Times](#). For Markoff, this Web 3.0 is based on the excavation of human knowledge, as Google has operated within its Page Rank (who plays the links of a web page to another as a vote). And to give a sum of examples to his thesis: "*We're going to a Web of connected documents to a Web of connected data*" said [Nova Spivack](#), from [Radar Networks](#), a start-up company that operates the content of social network websites, and who reported recently on his blog, [how fed up of web 2.0 he was](#) ("*Destroy the myth of Web 2.0*"). [KnowItAll](#), from a research group at the University of Washington, extracts and aggregates information from products testing websites to provide understandable information to the user. So today, for information about travel, you need to review long lists of comments gleaned from the web. With web 3.0, the system will classify all the comments and will find, by cognitive deduction, the right hotel for your particular need. "*In its current state, the web is often described as being in the Lego phase, with many different parts able to connect to each*

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other. Those who bear the vision of a next phase, web 3.0, see it as an era when machines will start to do seemingly intelligent things. [...] It is clear that human knowledge is more exposed to machines than it has ever been." says Danny Hillis of Metaweb. From artificial intelligence systems, such as [Metaweb](#) or [Cyc](#), which combine basic and conventional rules for of web content analysis, could afford to operate always better this incredible database that is the current web, to provide answers to complete questions. Unless, thinks the Research Manager of Yahoo!, salvation come from the aggregated user intervention: "With Flickr you can find images that a computer could not find. Problems that we are challenged for 50 years, suddenly became trivial."  
<http://www.internetactu.net/2006/11/21/vers-le-web-30/>, October 5, 2009

iii Franck Soudan, *Collectifs intelligents et algorithmes, l'i-négociation sur Internet*, H2PTM'09, actes du colloque, Éditions Hermès, Paris, 2009.

iv Free jazz normally retains a basic rhythm, but without regular meter, with sudden accelerations and declines, as the sea swell. Often the musicians of the same orchestra are playing on different tempos. Wikipédia, [http://fr.wikipedia.org/wiki/Free\\_jazz](http://fr.wikipedia.org/wiki/Free_jazz), 8 août 2009.

v [http://traces-du-sacre.centrepompidou.fr/exposition/oeuvres\\_exposees.php?id=31](http://traces-du-sacre.centrepompidou.fr/exposition/oeuvres_exposees.php?id=31)

vi [http://www.ciren.org/artifice/artifices\\_2/mullican.html](http://www.ciren.org/artifice/artifices_2/mullican.html)

vii Jean-Louis Boissier, *La relation comme forme, l'interactivité en art*, MAMCO, Genève, 2004, p.64.

viii *ibid.*

ix Maurice Benayoun, *colloque H2PTM'09, Session Art des Nouveaux Médias*, table ronde, laboratoire CiTu, Paris, mercredi 30 septembre 2009.

x Franck Soudan, *Collectifs intelligents et algorithmes, l'i-négociation sur Internet*, H2PTM'09, actes du colloque, Éditions Hermès, Paris, 2009.

xi Maurice G. Dantec, *Grande Jonction*, Albin Michel, Paris, 2006.

xii Manuel Castells, *The Information Age : Economy, Society, and Culture: Volume I, The Rise of the Network Society*, Blackwell, 1996.

xiii Peter Sloterdijk, *Sphären*, Suhrkamp Verlag KG, 2004.

xiv Bernhard Rieder, *Membranes numériques : des réseaux aux écumes*, laboratoire Paragraphe, 2008.

xv [Javadoc](#) is a tool for generating API documentation in HTML format from doc comments in source code, October 15, 2009

xvi For example, one of the most widely used methods of the Facebook API method is the one called [Users.getInfo](#). It can recover some information about the user. But does this raw method make sense for the U-rss project?

