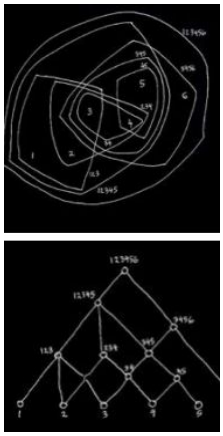
Berkman Center for Internet & Society at Harvard University

Written on behalf of an application for a fellowship at the Berkman Center



"We have a massive system to regulate creativity. A massive system of lawyers regulating creativity as copyright law has expanded in unrecognizable forms, going from a regulation of publishing to a regulation of copying.."

Lawrence Lessig,
OSCON 2002

Unsafe but sane: drawing the importance of private self-expression

Yasodara Córdova, 20 December 2015.

It is admirable how the Web has transformed the systems in which we live. In the last twenty years, the Web has been a layer for input and output for a huge amount of collective information. The idea of a "virtual world" no longer makes sense, given that the impact of events is no longer mediated by a computer screen or by other physical barriers. Today, in spite of those who live "away from the keyboard", we live in an online world. Our lives do not unfold without digital extensions available for interaction, even when these interactions are performed by others.

I have been observing these changes closely. When I was 12, I learned how to code in order to work with my father, who is a civil engineer. Since then, my life has always been immersed in the digital.

After graduation, I worked for nearly five years with data visualization. During this period, I have been awarded twice with the Vladimir Herzog prize[1] for Human Rights in the Internet category. After that, as a United Nations technical consultant, besides implementing platforms that allowed citizens to directly influence democracy at Brazilian's Presidency, I managed to work on the platform for the public consultation of the Brazilian Civil Rights Framework for the Internet[2]. This was the first - and probably the most important - of a series of public consultations that I developed and implemented for the Brazilian federal government. I've

[1] "Vladimir Herzog Award is a Brazilian award of human rights issues in the national press. It was created in 1979 by the Journalists Sindicate of São Paulo.", from http://bit.ly/1YZVpLC

[2] "Brazilian Civil Rights Framework for the Internet (Marco Civil da Internet) is the law that governs the use of the Internet in Brazil", from http://bit.ly/1EePf4u

been working with collaboration in law-making processes for the last seven years, among other things. In fact, right now I am the leader at W3C Brazil Office/Ceweb.br of a project that aims to create a dashboard to help lawmakers in the methodology involved in drafting legislative proposals that went through public consultation. The idea is to use deep learning tools to transform the suggestions made upon the bills into enriched data. Such data will be offered in a dashboard, so citizens can use it as a control panel, making the choices made when rewriting the bills more transparent. There are a lot of technologies involved in this project and a pair of important partners - the Ministry of Justice and the Federal University of Minas Gerais. I'm very proud, both of the idea, as of the outcome that the project already reached.

In parallel, I co-founded the Calango Hackerspace, the second Brazilian hackerspace, with headquarters in Brasilia (I was the only woman involved). I also built the Open Data portal for the federal government in Brazil with other hackers, volunteering to bring it up in 2012. I am also part of autonomous networks, like the Metareciclagem, that aims to thrill alternative paths to set rules for societies in the Digital Era.

My increasing inclination to build tools and platforms that boost the shearing force over the most rigid and established structures of the world, like governments or the financial system, led me to work at W3C Brazil office, where daily I develop standards that empower the Web as a crescent platform. In 2013 I was chosen to represent NIC.br as a co-chair of the W3C Working Group for Best Practices for Data on the Web. The group is working on recommendations to ease the publication of data in a "webby" way. Helping to build Web standards gave me a vision of its potential and value, and a comprehensive view of the way the web evolves.

Being at this position yielded me a vision about the advantages of some technologies but also of disadvantages that they can bring. Though privacy is a concept that is being transformed into a marketing strategy, now used as competitive differential, the vast majority of people from developing countries will be exposed to the exploration of their data as a commercial asset. And laws can be completely compliant to that.

I want to be a fellow of the Berkman Center because I recognise that there is a possibility of a huge change in the way the Web grows. This change, explained below, can lead to a completely controlled and dystopian virtual environment at the Web. Being at the Berkman Center will allow me to develop studies with data, collected from several sources, that can support the proposal on preserving non-regulated and non-linked and unwatched spaces by default in the legislation. By doing this, I intend to make a proposal on the preservation of online non-regulated spaces, protected by cryptography.

Could Satoshi Nakamoto have created the Bitcoin system if he had no choice but to identify him/herself when committing the code? Obviously, not.

The movement of decentralization force among developers, due to the advent of the Blockchain hype. Such evolution can increase the flow of data that identifies users since each transaction leaves a permanent trace that can be connected with the real identity of the user. Furthermore, banks and other institutions - that happen to be public in many cases - are already eager to use blockchain-based systems to operate and offer services.

Although this seems the best solution to prevent fraud and corruption, **when systems are implemented from top to down, they usually bring components that tend to explore the weaknesses of minorities.**

There is also a strong movement on using linked data to share, in a graph-based model, personal data controlled by the user. These systems are being developed by several teams around the world, like the one being developed by Tim Berners-Lee's team at MIT. The so-called “Solid,” is a platform that uses “linked-data” concepts to offer a system to decentralize the data that is on the Social Web. At the W3C Web Payments Working Group there is an effort to offer the users options over the use of their data, in exchange of benefits in specific services, loyalty programs and networks of partners. The group is building APIs to integrate services in a browser level, transforming the "building experience" into something even more pervasive and smooth.

In this context, the Internet of things appears as the protagonist of this pervasive environment. Linking profiles, preferences, data, objects, actions in social networks and applying systems that leave the choices over the use of all this data for the user represents a future that can stand for a new wave of economic growing and wealth distribution for the world. The Web can turn into an even more spectacular space to profitable activities, all controlled and supervised by the major exchanges and governments - be it by taxation or surveillance methods. I believe that if this scenario comes true, creativity, disruption and innovation will be automatically criminalized out of the "official systems". Legislation and security systems will hang every different form of expression in systems that do not offer an opt-out.

Although the interdependencies of the two spaces are very clear, **unsupervised spaces allow disruption and protect the human rights where there is no former alternative.** I intend to collect data from group places, forums and other spaces that are currently away from the search engines, trace and bound differences, limits and connections between linked and non-linked spaces (where anonymity and freedom of expression are completely allowed). As in cities, where the organically shaped semi-lattice models should be respected so that the city can grow healthier, at the web the need of structured and identified information should not serve as motivation to undercut completely unobserved spaces.

Inspired by Christopher Alexander, in the paper "A city is not a tree[3]", I want to build upon his idea with data and speculative models to establish or identify patterns that explain why free spaces are needed at the Web, to reinforce the proposal of a legal free space at the Web.

Lastly, I can suggest that tracing parallels in the way the Web grows with the way the urban spaces have arisen, scientists may be able to foresee the impacts of some technologies and apply this knowledge in new legislation before a disaster happens.

I am sure that only at the Berkman Center, a place where social issues are addressed along with technological questions, I would be able to navigate through all the knowledge available to understand and represent the problem presented. Plus, I am sure that there I can find peers that will help me with the multidisciplinary knowledge I need to guide my research. I am avid to discover how these problems can be addressed so we

[3] http://www.bp.ntu.edu.tw/wp-content/uploads/2011/12/06-Alexander-A-city-is-not-a-tree.pdf

don't fail as a society that preserves everyone individual’s personality and collective diversity.