
Open Data

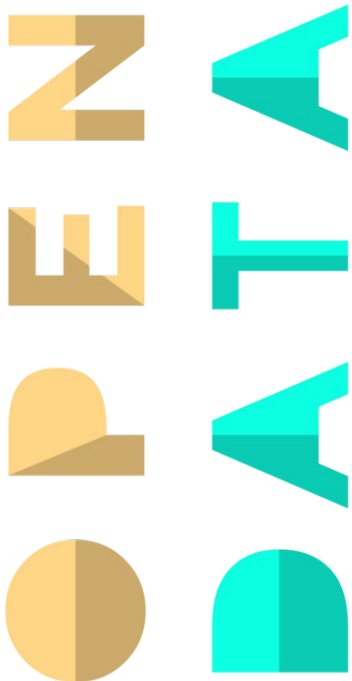
Cart351

Mélanie Abbet // Rose-Marie Dion // Dana Ryashy



What is open data?

Data is basically facts and statistics collected together for reference or analysis. We create data everyday by our day to day actions. Open data is data that can be used, consulted or shared by everyone for free for any type of project. Before the last few years, it was difficult to access and have certain answers, but now with open data, we can easily obtain statistics on a precise subject.



What is open data ?

« Numerous scientists have pointed out the irony that right at the historical moment when we have the technologies to permit worldwide availability and distributed process of scientific data, broadening collaboration and accelerating the pace and depth of discovery ... we are busy locking up that data and preventing the use of correspondingly advanced technologies on knowledge. »

— John Wilbanks, VP Science, Creative Commons

Implication of governments



With all the new technologies, we have access to more and new type of data. This is why in 2009 a new law was instaure to make it public. This comes as more important subject due to the government. Since that year, certain countries are creating new ways to make open data accessible to the rest of population.



Open data criterias

For data to be considered open data, we need three specifics criterias:

Availability and access

Redistribution and re-use

Universal participation

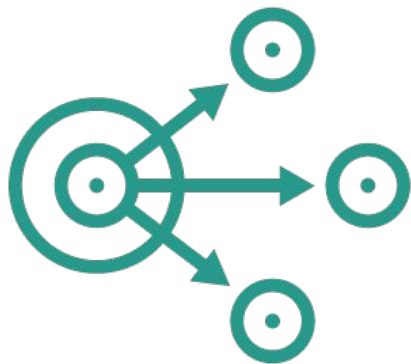
Availability and access

This is simple, open data needs to be accessible to everyone without a cost or the intent of making profit. The easiest way would be by downloading the wanted data on internet. When we say free, it needs to be modifiable and not blocked by a password etc.



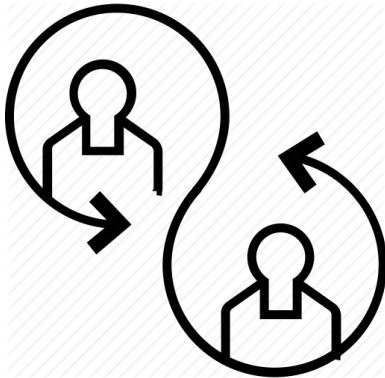
Redistribution and re-use

Just like giving the authorization of using your data, the open data needs to have terms and conditions to used it in any type of situations. This way, we can use data without comprising the origin subject of use.



Universal participation

Nobody should be excluded, no discrimination should occur, no one (person or subject) should be put aside. People need to be able to use for school for example and there should be no commercial use restrictions.



Interoperability

To make everything mentioned before possible, we need what we call interoperability. This is the ability to different groups to work together and mix different data with each other in this case. Without communication, it doesn't serve any purpose.



With goods come problems

Most people see open data as a good thing that will help us take better decisions. For example, having access to economic data could help small companies to grow. It also helps society to understand what is happening around them (crime rates, educational achievements, social services etc.). You then have a better understanding what the government is doing with your money and the outcomes. It's easier to criticize it if you have the data to support your point!



With goods come problems

There is of course the privacy issues. You don't want to share your personal life, but at the same time, you want accurate data about certain subjects. It could start a debate about open data and privacy. There is also social impact :

- A survey by Direct Line Insurance in the same year found that 11% of respondents claim to have seen but not reported an incident because they feared it would make it more difficult to rent or sell their house.



In brief

To make this subject possible, every users needs to understand the concept of openness. By giving clear guidelines and understanding them will give access to everyone to data, but this is not without any risks. I would say that nothing is possible without compromises!

Protocols

As described by Alexander R. Galloway:

“Protocol refers to the technology of organization and control operating in distributed networks.”

In other Word the internet is not a pool of free information accessible for everyone. It is space regulated by rules. Those rules are defined with protocols (TCP, IP, DNS, HTTP).

Data et protocol

The data flow through a network device as a “ packet”. To be send the data is compacted. This is called Data Encapsulation.

the data is completed with layers of control information (destination addresses, format, and other information to help the delivery).

Encapsulation

This process of data encapsulation is used in programming in diverse cases. And mostly in order to make it more approachable and easy to use. However regarding the mentality of open data, the content of the capsule is really difficult and almost impossible to read or modify for an external user.

Hacking

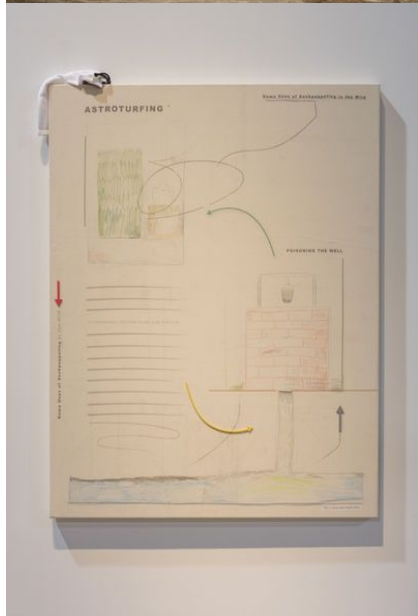
The web describe by Galloway is still in need of movement and change, and have place for improvement. For example Hackers are broadly describe as troublemakers but he see them as playing an important rôle into the evolution of protocol and the web itself.



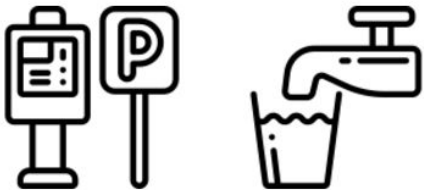
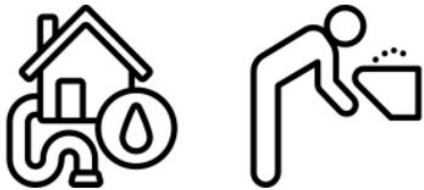
Matt Goerzen

Matt Goerzen is an artist from Montréal. He did a BFA in Concordia and a Master in communication at McGill.

through his art he transcribes the methods used by different hacker in the web. Like sockpuppet or how the internet can be overwhelmed with data in order to manipulate or initiate a way of thinking.



Long Live the Web



Egalitarian principles

1. To be sustained independently and by the WWW Consortium.
 2. Why? Web is a public resource:
 - a. continuous worldwine conversation
 - b. vital to democracy
 - c. critical to free speech
 3. Method: computer protocols and software
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One: Universality



1. Possibility to access any link
2. Access independent of a user's computer, hardware, screen size, software, language, internet connection, disability.
3. Provides information in any form, any quality (tweets vs research papers)



HTML

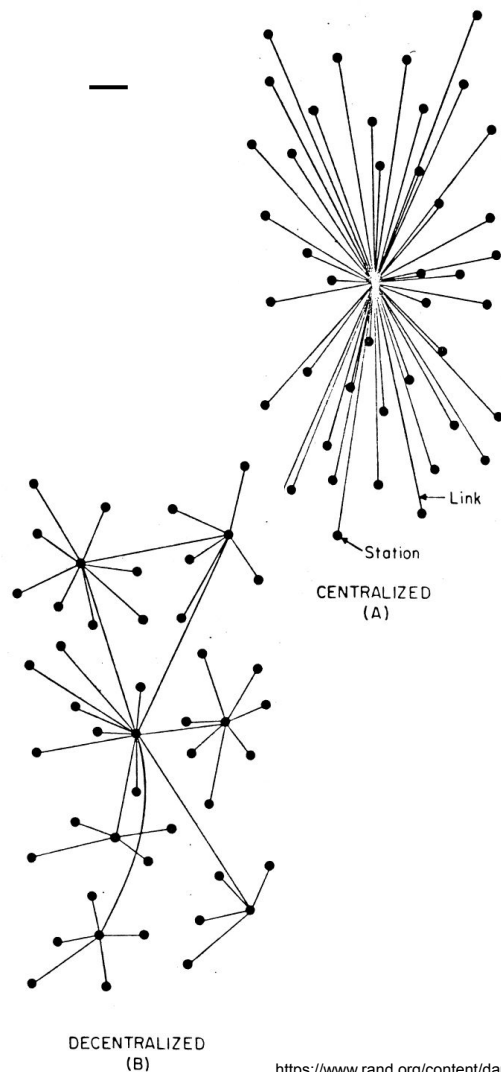


Two: Openness

1. Web technologies must be available for free & no royalties -> diversity & richness on Web
2. No need to obtain permission to build a website

Creates innovation:

1. Companies invest in Web apps because they will work for any one
 2. Scientists create large databases
 3. Governments put data online -> transparency
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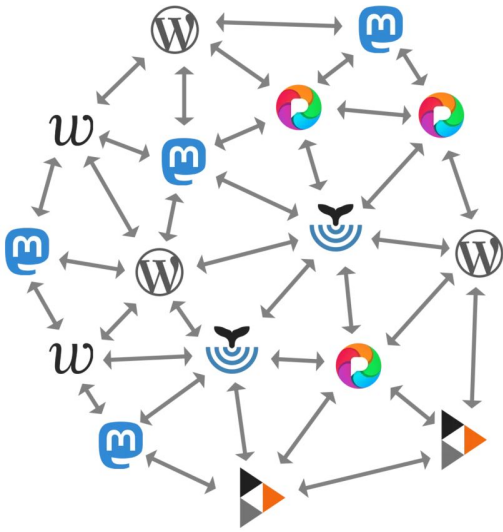


Three: Decentralization

1. Do not need an authority's approval to add or link a page, regardless of content
2. All you need are HTML/URI/HTTP protocols

Threats

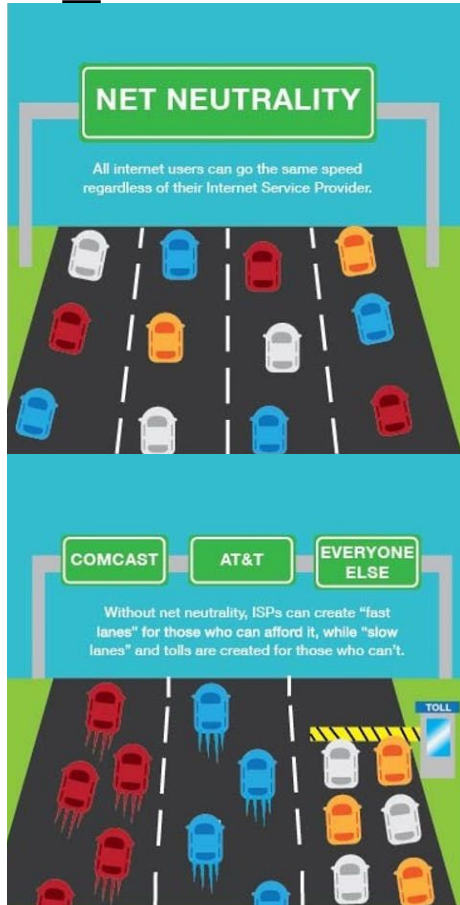
1. Web turning into cable television
 2. Browser or website becomes a monopoly -> innovation limit?
 3. Social media websites are centralized: walled gardens
 - a. One company is trusted with the data of all of its users
 - b. One company sets the rules of what is/is not to be published
 - c. Information flow happens primarily within the website.
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<https://notiz.blog/2019/09/26/hello-fediverse/>

Distributed social networks

1. Mastodon: twitter-like open source social platform
 - a. post short text, follow other people, 'retweet' other's posts
 2. One grabs a copy of the code and creates an instance on their own server, with their own rules
 - a. sign up with your favorite.
 3. Servers communicate with each other
 - a. using the ActivityPub open protocol: similar to email
 - b. Activity pub defines how posts created/interacted with.
 4. ActivityPub is used many other platforms
 - a. such as PeerTube: youtube-like social platform
 - b. you can interact with all of these platforms with Mastodon
 5. Fediverse: a collection of social networks that function as a single one.
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Electronic human rights

1. Net neutrality: preventing ISPs from reducing/increasing bandwidth to one website vs another.
 - a. prevent commercial, political, religious discrimination.
 - b. should be maintained for all types of platforms
 - c. maintain fair market, democracy, science.
 2. Anonymity: preventing ISPs from peeking into one's visited websites
 - a. prevent targeted ads or discrimination
 3. Free speech: maintain one's access to web regardless of their actions.
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PLATINUM MEMBERS



Challenges with the open web

1. Mean people 🐸
 - a. Free speech \neq hate speech
 - b. Gab, apparently neo-nazi social platform, currently the biggest node in the Fediverse.
 - c. Current solutions: isolation. Prevent them from coming into contact with other instances in the network.
 2. No money
 - a. No CEO, no marketing team, no ads.
 - b. Can slow innovation.
 - c. Current solution:
 - i. Crowdfunding
 - ii. Companies sponsoring development of open web standards
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Questions

Who should encourage, sustain and regulate open web standards?

How should we regulate the use of open data?

What do you think about hacking the web and the possible positive/negative impact it could have?

Thank you!

sources:

- <https://www.techopedia.com/definition/24810/data-encapsulation>
 - https://en.wikipedia.org/wiki/Alexander_R._Galloway
 - <https://castig.org/alexander-galloways-protocol-an-argument-summary/>
 - <https://docs.google.com/presentation/d/1usqHWVW0eGxwiXCgczhBsx7UqEAHuGSko5M0infc27U/e/dit?ts=5db9aff6#slide=id.p>
 - Alexander R. Galloway, Protocol in Theory, Culture & Society, May 2006.
 - <https://pastebin.com/V0wn0Mfg>
 - <https://www.lapresse.ca/arts/arts-visuels/201609/02/01-5016686-arsenal-montreal-lart-post-internet.php>
 - <http://mattgoerzen.coms>
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sources:

- <https://tantek.com/2010/281/b1/what-is-the-open-web>
 - <https://techcrunch.com/2016/04/10/1301496/>
 - <https://www.youtube.com/watch?v=IsXEVQRaTX8>
 - <https://www.youtube.com/watch?v=ZegM4vx7MUo>
 - <https://www.forbes.com/sites/tonybradley/2017/07/29/the-death-of-adobe-flash-is-long-overdue/#10f4ccb26f8b>
 - <https://www.youtube.com/watch?v=S57uhCQBek0>
 - <https://www.theverge.com/2019/7/12/20691957/mastodon-decentralized-social-network-gab-migration-fediverse-app-blocking>
 - <https://blog.joinmastodon.org/2018/06/why-activitypub-is-the-future/>
 - <https://docs.joinmastodon.org/usage/decentralization/>
 - <https://www.theguardian.com/society/2012/jul/10/open-data-force-for-good-risks>
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