

Blinded by Algorithms

Current symptoms -

Paralysis: "We can't do anything, because technology inevitably has led to where we are."

Fear: Our systems are vulnerable. We are constantly being attacked.

Bullying: Privacy is something of the past.

Polarization: Fake news vs. real news. The responsibility for publishing does not exist.

Authoritarianism: Net states are more powerful than nation states, except for authoritarian regimes

How we got into that mess

Follow the money

- Underrated transformation in the publishing world. From books to digital. Not only technical but also economical and legal. Amazon understood that books were the first industrial process. They blindfolded us by letting us think they were selling books, as they were really building the cloud.
- Google put a grip on access to information and world knowledge. They not only gave access, but they spied on everybody and got a trove of valuable information that they could resell. Provided they were left unregulated.

- Facebook, LinkedIn, and other social networks helped people connect to each other. What they really did was, as Google, to accumulate information about people down to their most intimate relationships, and became an avenue for the advertisement industry.
- Authoritarians understand how valuable all this information and appropriate the data to reinforce their power and influence. Russian propaganda, China social credit score.
- In democratic/capitalist societies, net states have become more powerful than nation states. Lobbying power influences legislation and leaves much unregulated.
- Software industries. At the beginning they were created custom software for their big corporate clients (IBM). Then mass products came with personal computers (Microsoft). Then the Web came and the cloud. Mass products extended from individuals to corporations. Most corporations use software built for generic purposes and have to adjust their workflows to the product, instead of what used to happen before.
- Data industry. Production of big data so profitable that it has become the paradigm for all data processing applications. Algorithms are well fit for dealing with big data. They don't behave that well with small

data.

Side effects

- Consolidation and concentration of the industry have sterilized innovation. Research is oriented toward reinforcing the business models of big tech corporations. Government-based research and academic research are falling behind. One of the reasons is that they depend on facilities offered by big tech (cloud storage, for example).
- Information creators are left with technologies that only address big data. "Small" data processing is marginalized and the product offers for that market segment is much smaller. Dependencies on algorithms, coined Artificial Intelligence (a synonym for automation) and Machine Learning (the reckoning that humans have no role to play) lead to powerlessness and feelings of becoming irrelevant.

History

- Vantage point: Witnessing the transition from print to digital. Computerization, followed by digitization. Editorial control gets dissolved into platform claiming first amendment right as a pretext to let anything go (with exceptions).

- From open source internet to e-commerce. The Browser war. Standards to de facto standards (Word, PDF)
- Technology evolves with more and more complex layers
- Computers think in binary terms. Pervasive computer-based technology force people to adjust their thinking in binary terms, where it should be the contrary. That's subtle and well hidden, as computers look like they understand what we are doing. In fact, they oblige us to think like them. Example: stupid voice answering machines that keep repeating the same thing over and over pretending they are humans.

Solutions

- Get over the sugar brought by constant exposure to technology. Are we able to imagine life without getting constantly connected? Recognize that this is a disease like diabetes.
- Take a deep breath. What exactly are we doing? For example, are we using Facebook to exchange pictures of family vacations, or are we using it as a platform to sell our services? Should it be the same thing? Who owns the data? Who secures the data? What are

the intermediaries? Is anything virtual? Who controls, maintains and secures the infrastructure: Server farms, Internet cables, etc.?

- Diversify use of computers by getting away from algorithms. Human-centric vs. machine-centric information models. Example of Topic Maps vs. RDF. Who creates the AI algorithms? Who creates the machine learning algorithms? Who has access to tweak them? Who is assessing whether they work or not?
- Improve Accountability. Mechanisms missing. Example: no digital publishing legal model. Who is responsible for the content? Where has liability gone?
- Investment of government in technology. Compared to medical research (NIH), there is no equivalent for technology. Why is the pharmaceutical industry the one leading the game, like Big Tech is?
- Reinforce democratic rights. Voting machines algorithms are proprietary, and subject to all kinds of conspiratorial discourse. Why are they not open source?