The Big G and the Never-Ending Story of Knowledge Monopolies

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I'm not in the business.

I am the business.

[Blade Runner, 1982]

In the critical trend in new media theory, which has taken place in recent years, the latest emerging question to be answered is: in which way software applications and search engines are shaping the architecture of the web, and affecting users' behavior? Needless to say, Google has played a hugely influential role in the process by which the Internet has gone from an experimental and relatively free phase to becoming a contemporary mass medium, affected by centralization and ruled by what Jaron Lanier first defined as a "lock-in" effect.

According to Lanier, in fact, our digital life is overwhelmed by the invisible bias of the software: "It takes only a tiny group of engineers", he writes, "to create technology that can shape the entire future of human experience", to the extent that "crucial arguments about the human relationship with technology should take place between developers and users", before the innovation process is completed. On the contrary, people usually experience the web without understanding the technological limits of their environment – like in a "fishbowl", according to Marshall McLuhan's old metaphor – and believe they are totally free even though, of course, they are not.

As far as the web 2.0 is showing an unexpected format rigidity - reducing the variety of styles typical of the early nineties - Lanier is probably right about the impact of software on everyday life: nonetheless, the concept of "lock-in", from a theoretical point of view, is far from being unambiguous. On the one hand, in fact, the "lock-in" is supposed to depend on a very technical problem, the digital design, and to occur when different software applications cooperate to limit the potential strength of computers, as in the case of the MIDI protocol. On the other hand, "lock-in" is often intended, in a broader sense, as a framing process, directly acting on the organization of culture, as in the case of the idea of "file", which is now shaping our knowledge exactly as the alphabet or the press did in the past. And so, is the "lock-in" a new problem, due to the widespread diffusion of design-driven communication, or is it simply a new chapter in the very long history of knowledge monopolies?

A first attempt to answer the question is provided in Eli Pariser's study about "filter bubble", and how Google's customization practices are orchestrating users' experience. The most important websites, Pariser notes, install more of 60 cookies on users' computers, aiming to track their traffic patterns: following this information, Google tries "to extrapolate what you like", and adapt any search result to the individual preferences, building up, in this way, an invisible cage – a bubble – destined to filter out the information not related to the target. "Of course", Pariser adds, "we've always consumed media that appealed to our interests and ignored much of the rest"; nonetheless, the filter bubble is now introducing three aspects we were not used to face.

First, the new environment is significantly narrower than any previous one, and, being built upon *individual* tastes and preferences, it does not allow any kind of sharing: in short,

everybody is "alone" in the bubble, condemned to find his own way to knowledge. Again, the bubble is perhaps not harder than other information environments, such as newspapers or TV channels, but for sure it is invisible, and, unlike traditional media, it does not reveal its bias and selectiveness. For the same reason, whether you like it or not, you can not "choose to enter the bubble": in other words, you are not allowed to actively select the filter, as you can do by choosing a particular newspaper or TV station.

In many respects, this appears to be a powerful answer to what Clay Shirky and David Weinberger referred to as the "filter failure", due to the inclusiveness of the web. Following Weinberger, filters "no longer filter out", "they filter forward", to the extent that "what doesn't make it through a filter is still visible and available in the background". According to Shirky and Weinberger, so, there is no evidence of information overload: even in the past, in fact, "there was always too much to know", and the real difference is that "now the fact is thrown in our faces at every turn", and consequently we simply "know that there's too much for us to know". Nonetheless, such an optimistic idea - that the current information overload is nothing but a better version of the typographic "cognitive surplus" - is nearly unreliable, if we consider, as Pariser does, that people are not aware at all of how filters work, and so they eventually do not know how much there is to know, or how to reach it. Web search, in this sense, is "inherently conservative", Siva Vaidhyanathan points out, because Google simply gives users what they think they want, limiting any surprise or unexpected encounter. What is more, Vaidhyanathan's book is useful to understand how users have finally become not the "customers", but the real "product" in digital market: a "soft power", as we now call it, grounded in the control of both levels of services and contents.

- [...] The evidence [...] of what we might call "infrastructural imperialism" is much stronger.
- [...] If there is a dominant form of cultural imperialism, it concerns the pipelines and protocols of culture, not its products - the formats of distribution of information and the terms of access and use. It is not exactly content-neutral, but it is less necessarily contentspecific than theorists of cultural imperialism assume.

Exactly like the other companies, Vaidhyanathan adds, Google does not care if the webpages contain mainstream or niche products, and not even if they support any kind of politically subversive trends: in short, ideas do not matter, only money does. In this sense, we can better understand the two stages in Google history, highlighted by Vaidhyanathan and Pariser: while the first period was ruled by the Page Rank's homogenization power - providing almost the same contents for everybody - the second one is driven by the customization power of the cookies, which fragment the population into millions of bubbles. In any case - whether it makes people homogeneous or different - Google goes ahead pursuing its real goal, and making itself the core of the global market.

A last question to be faced, then, refers to the effects of this condition on the organization of culture. As we have seen, the web 2.0, through its algorithm, simply reflects the users' individual tastes, thus providing biased information: as a result, it keeps people far away from what we call "public sphere", intended as a shared place, where different ideas can meet and mix. So, the problem with the web, according to Cass Sunstein, is that people are now only exposed to information sources that they have chosen in advance, living in a sort of "echo chamber", and avoiding any "unanticipated encounter" with alternative instances. The information bubble, Farhad Manjoo agrees, eventually carries users toward a condition of "new tribalism", where reality itself is "splitting", breaking down into different, polarized communities of belief, almost unable to talk to each other, in the same way as people seem not to deal with diversity anymore. In conclusion, as far as filters tend to wall people off from any public discussion, the openness of the web is at risk; and what is more, the web itself

could be at risk, according to its creator, Tim Berners-Lee, and likely to break down, in turn, into isolated and fragmented parts.

To some extent, in the end, the risk brought about by the latest trend in Web research could be a kind of non critical appropriation of the standpoint of critical theory. This risk is more likely to be avoided as long as the research is able to combine the strength of critical ideology with the precision of technical evidence, unlike what happened in the past decades, when the political economy of the media refused to take a closer look at the TV culture, proving to be unable to understand its deepest social meanings.

As for the intertwining of ideology and research, while a few years ago we used to be afraid of the homogenization brought about by global media, now we should be careful of the ideological fragmentation - or Balkanization - operated by closed systems and "walled gardens", such as Facebook, Apple or Google. In any case, this is the hard truth about late capitalism: technological innovation goes faster than any belief, and theory must constantly be rebuilt and grounded in new evidence. How to fill this gap - and make this "quantum leap", according to Geert Lovink - is eventually a major issue, for what we used to call media studies.

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