



Salvatore F. Pileggi

Is Big Data the New “God” on Earth?



Surfing in the ocean.

This evening I sat down to reflect on some significant happenings in the world. I’m in a rare mood, whether because I just got off the longest of flights (from New Zealand to France) or as a result of an inspirational conversation, I feel the need to retrace my origins. Instead of sitting down to write

a purely technical paper, I am thinking about the basis of my education from the ancient Latin and Greek cultures and how they influenced me and offered me so much as a person.

Google and Facebook versus Surfing

I’m challenging myself to remember the last time I solved a significant problem or performed an entirely new action at a professional level, without turning to Google for help.

For someone in my position it is normal to do research online, and subsequently I trust that Google will give me a definitive answer that is smarter, better, and quicker than a traditional channel (e.g., visiting a physical library).

However, it is not so obvious at a personal level. I could report on thousands of examples. The most significant to me is my activity as an amateur surfer. I love to be in the ocean, to feel nature, every

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chance I get. When surfing, there is nothing further away in my mind than a personal computer. Apart from having fun and getting a good work out, amateur surfing provides an opportunity to disconnect from the workplace, from the normal day-to-day routine, and of course from technology as a whole.

As a computer scientist I am otherwise surrounded constantly by tech-talk! But there is something about technology – it never seems to leave me alone. I can't budge it. So I "surf" the Net to discover new places to surf in the sea! I also love to get online wave reports and weather forecasts to be out surfing at exactly the right time. I even plan my surfing trips using smart Internet tools. At other times I also produce my own multimedia content that I share with my online community, and I watch out for cool experiences that other surfers worldwide recommend.

Evidently technology has even pervaded the surfing world, just like any other aspect of life. There is something wildly paradoxical given that I am trying to escape technology through surfing and then I involve technology somehow in my surfing! I'm trying to grapple with this, both as a computer professional and as a recreational surfer. It just doesn't make sense. I'm trying to make myself believe that I feel free when I'm researching surf sites, but now I am thinking twice about how free I actually am.

Somehow I can reconcile these two types of surfing with the feeling of freedom. I feel free when I am surfing the Net, and I feel free on the crest of a wave on my surfboard. I don't think it is quite the same freedom, but in the first case it is my consciousness that makes the activity real. The second evokes feelings that are rather irrational

but probably go a lot deeper into my psyche.

Speaking of sharing, I luckily still remember my life before becoming a Facebook user. At that time, the first concerns surfaced about the risk of Facebook addiction, and of overly enthusiastic users pointed to the positives of social networks and the impacts on people's everyday lives. Both points of view sounded to me alarmist. I recollect the commentaries that pointed out: "If something has happened and is not on Facebook, then it never really happened" or "If you are not on Facebook then you don't exist." "What an exaggeration!" I thought. But I have to admit that I immediately recognized some syllogistic similitude with the typical familiar "Ask Google!" I evidently changed my mind about things once I got hooked onto Facebook, in a similar way that Google previously had entered my life.

Because of my experiences of life in the "surf," I'm somehow deliberately or coincidentally converting my practical knowhow toward a Big Data philosophy of life. For me, the impact of big data represents a kind of "portal" to life, where the knowledge remains within Google and more importantly what Google represents. This is a perfectly reasonable approach to take considering that the promise of big data is unanimously considered one of the major scientific breakthroughs of our time, especially in terms of overcoming global challenges (1). Despite security risks, privacy concerns and, last but not least, evident problems of reliability in studies and applications, the excitement around big data is tangible (5) and absolutely generalized (2).

I don't think I'm the exception. Of course the Internet itself implies a form of big data. It is a given that

increased technological capabilities are heralding new potentialities (1). The idea of having a social network for real-time input for a system I'm designing, then using that network to analyze human behavior on a large scale on the fly, and using it to study and service metropolitan ecosystems, are topics intrinsically more attractive to me than any other. At least I can see how data will have a positive impact in the world I am living in. I want to be a part of this change for good.

I know, I know what you are thinking, and I am with you – big data does not necessarily mean better data (3) with which to make a decision. Technical issues, technological advances, and some other well-known algorithmic traps (just see Google's Flu Trends App (4)) mean that we should be using our common sense to converge data together meaningfully to solve social research problems. Many, if not most modern theories are being drawn out, directly or indirectly as a result of big data analysis. The areas most affected by big data opportunities are complex systems like healthcare that use big data for discovery and support.

I'm impressed by more than one aspect of big data. First of all, I am impressed by the enormous opportunities surrounding its application. It seems that big data will have an answer for everyone and everything before too long. At least that is what is being promised. Big data is somehow integrating (if not replacing whenever possible), the classic concept of simulation in the mind of a scientist. Another aspect that is constantly catching my attention is the sensationalistic character of certain studies. It usually starts off something like: "From recent studies on Big Data, scientists discovered that..." Each time, it sounds more and more

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familiar and, sometimes it even looks like a kind of race to the greater alleged impact, which often lacks reliability.

Big Data as a Tangible “God”

I use Google to find answers at a personal and a professional level in my everyday life. But I also progressively understand that I’m doing exactly the same with big data at a research level as a scientist. Considering God from a

strictly philosophical perspective as the “all-knowing,” without any lack of respect to the religious, if you ask me: what is the closest tangible (or almost tangible) concept of “a God” on Earth? Probably not so long ago I would have simply answered:

Google is God. But right now I believe it is Big Data.

The concept of God on Earth is definitely transient in my mind, just like technological evolution. But more realistically, assuming it is just a mental abstraction, Big Data simply has the size and the momentum to mark a new dawn. Simply.

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NEWS AND NOTES

IEEE *Technology and Society Magazine* has received a 2015-2016 Award of Distinguished at the Chapter Level from the Society for Technical Communication (STC).

The Distinguished Award is the highest level STC award at the Chapter level, and means that *T&S*

Magazine will be entered into the International STC Publications Competition. The Distinguished Chapter level award will be presented in April in Washington DC. After that, the International Competition results will be announced in May 2016.

Comments about *T&S Magazine* from the STC judges included:

“...an incredibly informative publication, with the kind of discussions I don’t see anywhere else.”

“Very impressive publication that packages engaging, well-written content in a pleasing design format.”

“Really interesting articles, interesting research reported, and the writing is clear and concise.”

“Reads like a great combination of a scholarly journal and a popular magazine”

“Professionally and effectively produced.”

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