

## Editorial: On IRIE Vol. 24

Does 'big' in the notion of Big Data also imply 'new' – a qualitative 'new'? Is 'Big Data' a legitimate new area of dedicated ethical analysis or do the rules of the classical 'Ethics of Data' simply apply to the 'Ethics of Big Data' as well?

Hegel has argued in his 'Logic' that from a certain point quantitative change leads to a qualitative shift. The prime example is water heated up vaporizing at 100 degrees centigrade thus becoming steam. Without indulging into the discussion of Hegel's concept especially not in the dialectic reception of Marx the question remains: is or from which point on is 'big' also 'new'? For a first approach let's see how big 'big' is:

- In 1995 the world wide web was considered to contain some 30 GB of data. That would fit on a regular USB stick today.
- In 2007 the total amount of data stored was calculated to 295 exa bytes. If we were to take all that information and store it in books, we could cover the entire area of the US or China in 13 layers of books.
- Facebook today stores, accesses, and analyses some 30+ Petabytes of user generated data i.e. thousand times more data than stored in the U.S. Library of Congress
- And the amount of data generated will continue to double every 2 years leading to a production of 40 zeta bytes of new data per year in 2020. If there was a star for every byte of data there would be a galaxy of data for every sand corn on the planet by then.

This technological development grows faster than everything else humanity has faced before and its social impact will be massive as well as pervasive reaching deeply into our daily life. So let us not investigate if the Hegelian concept applies. Let us analyze thoroughly how we shall handle this significant phenomenon from an ethical perspective. The editors of this issue have drawn together some very good suggestions. We thank them for thus contributing not only to the vast ocean of data produced in 2016 but also to the very discussion of its ethical relevance for us. We hope you appreciate it.

Sincerely yours,

*the editors of IRIE*