

# **(R)evolution in the information world on the road ahead**

Ronald Poell, 2008-05-28

It is most likely that within the next few years a major shift in our information world will occur. A lot of arguments point into that direction. In this small article I will sketch my perception of what might happen soon and why.

## **Consummation**

Our pre-millennium kids (born between 1990 and 1995), the millennium kids (1995 – 2005) and the T3K (Two Thousand Ten kids, 2005 – 2015) have, compared to the older people, some specific characteristics related to the information world.

One of the major shifts resides in the ways they use to get information (computer, (smart)phones) the media of it (photo, video, chat, sms, telephone), the amount of parallel information channels on the same media (up to seven for CNN e.g) or different media at the same time and, related to the kind of media, what I like to call the “condensation factor” and the related “intellectual acquisition time”.

The “condensation factor” represents the abstraction level and the absence of (useless) details.

The “intellectual acquisition time” represents the time necessary to absorb the information in short term memory. Written text is typically a slow medium, parallel video's together with spoken text belong to the fastest media known up to this date.

The major difference between these kids and the older persons is that they have grown up with it, they are used to it and exploit it fully. It is natural for them.

## **Production**

According to some the world population will stabilise around 9 billion people by 2100. As of today we are 6.1 billion. And nice curves exist representing how we will get to the 9 billion. The mean information production per person of the technologically advanced countries will probably still grow slightly in the future, but more important, a huge part of the world population will increase their information production as they acquire the means to do so.

The explosion of information production is created though not by human beings but by the existing and new automatic means. Be it video (surveillance camera's), activity capturing tools (internet and phone connections), positioning information (GPS or other: cars, phones), personal preference profiling, etcetera. The next decade will see the real explosion of this.

## **Distribution**

In the distribution of information, i.e. the accessibility throughout the world, things are going to change. Actually more than 50% of the information produced by humans is only accessible locally, the rest is widely distributed mainly through the Internet. From the automatic produced information only less than 10% is widely accessible. It is likely that by 2020 almost all (about 95 %) of what will be produced (human and automatic) will be globally accessible.

## **(R)evolution**

The evolution sketched above increases the need of automatic analysis of the produced information in order to provide the humans the information they need at the right time and the right level of

detail. The bottle neck will be the capabilities of systems (agents) to semantically analyse what is produced (identification not only of the meaning of text but also of e.g. video), to synthesise, to filter this mass in order to deliver what is needed.

Let's state that 5 years or less are necessary to globalise the usage of a (technology) concept, if it is good and useful. This acceptance/appliance period tends to become shorter as years go on. If 2020 is the time we look at, by 2015 some combination of technologies must be available to pre-digest the available information (also from the past) and bring it to the attention of the interested humans. In order to avoid the impact of malicious production, the aspects of reliability, trust (in the information and the source) and others are needed (evaluation functions).

It is likely that our actual operating systems, too much forged in our actual information paradigm, need to be replaced by something much more efficient in handling the huge amounts of information. Their characteristics will probably contain: widely distributed functioning and storage (grid, cloud), agent based (autonomous capabilities are a must), user friendly interfaces (voice e.g.), great variety of devices: from the successors of our actual smart phones to computers, television and all other ambient devices we will have by that time. These new operating systems together with the way we interact with them would be the "r" in "revolution".

Do you also feel the excitement and the urge?

Ronald Poell,

Written on his 53 birthday, to share this part of his future vision.