



There are a number of advantages of being the editor-in-chief. An important one is that I have influence on the theme and the form of the magazine. It now seems to be the right time for a special about the long-term impact of technological developments. Another privilege is that I have had access to all the contributions in this Compact special in advance. Enjoying the energy that my colleagues have exerted and their well-considered visions I realized that I should also do something with this privileged position. So I present my reflection on these 29 interviews in this contribution. Along with being stubborn am I also realistic enough to realize that this reflection is probably interspersed with my own vision. I am curious to see whether you share my observations.

Digitalization and Beyond

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Digitization is “the action or process of digitizing; the conversion of analogue data (esp. in later use images, video, and text) into digital form.” Digitalization, by contrast, refers to “the adoption or increase in use of digital or computer technology by an organization, industry, country, etc.” (definitions: Oxford English Dictionary)

During the past decades there have been various breaking points that we now already designate as eras, the before PC era, the before Google era and the before smartphones era. Before too long we will also talk about a following era, perhaps the “before nano era”, the “before data analytics era” or the “before wearables era”. With the introduction of new technologies people, organizations, industries our global society change more and more. What will be the most important developments in the coming decades? And even more important: what will our lives and our society look like in 10, 20 or

30 years from now as a result of these technological developments?

What do you find most noticeable in the pronounced visions of the future expressed by the people that you have interviewed?

I have asked colleagues to express a vision from their specialism or their focus area about the current impact of technological developments and to give us an insight into the impact of these developments that can possibly be expected in the coming decades. This provides an anthology of different insights, the one more revolutionary than

Engineers solve technology problems but the board must indicate what they want. The question is how do you actually win over the board within the organization.

the other, but all of them give food for thought. A clear picture also emerges. It is obvious that we find ourselves on the eve of a rearrangement of the global society driven by technology, or more probably, we are already in the middle of it.

These are quite strong words. Could you once again point out the 10 developments which according to you are the most important?

I strongly advise to read the contributions in the Compact 2015 special, I would absolutely fail my colleagues by trying to summarize them in a few words. They have started me thinking again. I have presented the main thread of the articles in the following 10 developments.

1. In the new world there is ultimately only room for one winner and the winner takes all. Naturally, the winner leaves room for specialists to connect to his solution. You therefore have a choice: you either become the biggest within your environment or you specialize. But the global market changes at a rapid speed, the winners also remain vulnerable and have to continue to develop.
2. The technological developments do not pass by certain industries or countries. Whether you are active in energy, retail, professional services, the financial sector, the fishing industry or even government, in the Western world or outside of it, specific examples of technological developments that will have a major impact during the coming decades can be found everywhere.
3. The manner in which we organize our work will undergo a major transformation. For a long time, the complaint in the business community was that technology particularly had an impact on a reduction of the number of blue collar workers, while the productivity of white collar workers did not improve. We have now arrived in an era where it is the turn of the white collar workers. Middle management is already being reduced. The position of higher management will also be threatened in the coming years, among other things by a tremendous shift towards fact-based, and real-time, decision making and the new working methods that technology makes possible. This is substantiated by the popular Scrum approach. This already teaches us that the manager will be replaced by the cooperating foreman, and soon the director himself will also take on the role of cooperating foreman.
4. Robotization is already taking flight; in about 10 years social robotics will have an important place in society and therefore replace many jobs. This also has a major impact on Business Process Outsourcers, cloud providers and call centers. It is important to realize that in 20 years 50% of the current jobs will no longer exist. This will have an enormous impact on employment and will hit some regions very hard.
5. The entire world is the playing field, differences between countries or regions will quickly become smaller. For example, in the energy industry, a fast changing sector, China was known as the party that installed many environmentally polluting coal-fired power stations. But even there the trend has turned around. China now annually invests more in sustainable energy than Europe and the US combined. Currently, 90% of all solar panels are produced in China. The world is changing and when it concerns speed of adoption, we can learn things from each other.
6. Technological solutions standardize and will be increasingly available as components, partly within the own organization and partly outside. This will form the basis of implementations. Furthermore, a larger group of people will themselves compile and modify solutions, based on solutions that are already operational elsewhere.
7. Technological developments bring many opportunities but also risks with regard to security, privacy, terrorism and improper use of surveillance. It is clear that much work must be done in this area and that in the coming decades there is a great need for legislation and regulators.
8. The audit discipline, the IT audit profession and the consultancy profession will experience major developments. Much of the current work will disappear through the broad and transparent availability of knowledge, experience and standards. The work will partly be taken over by systems or even intelligent robots. But there will also be a