

# "Analog is the New Organic"

## Or why you should think twice about digitalization projects

In recent years, information technology has reached a level that offers almost unlimited possibilities, such as powerful smartphones, mobile Internet, and enormous storage and computing capacities in the cloud. Against the background of this development, the word "digitalization" has the potential to become *the* word of the late 2010s and almost certainly also the early 2020s. In the media we see statements such as "the digital transformation is causing a far-reaching change in all areas of life," "the digital industry is the future of Europe," or "data is the oil of the 21st century." If we believe these statements, then we are looking at a rosy digital future (however rosy might look in digital form).

However, the digital future is not rosy everywhere even today; just enter the term "digital day laborers" in your preferred search engine. Texts that show the dark side of digital work will quickly appear. The book "Analog ist das neue Bio" (*Analog is the new organic*, available only in German) by Andre Wilkens gives us an opportunity to look at the topic from an analog perspective. The book was also the inspiration for the title of this text and gives a good overview of the topic of digitalization from the perspective of the year 2014. Why is that year important? In digital dimensions, 2014 is a lifetime ago, but fortunately, ideas are more durable than many digital products. However, it is not the intention of this text to paint a black and white picture — as always, with every development, there are winners and losers. Furthermore—and based loosely on Nils Bohr—it is difficult to give prognoses, particularly with regard to the future.

Regardless of which side you view digitalization from, for everyone involved these are uncharted waters — for the customers and users of the systems, for the clients, and also for the IT industry and manufacturing companies. Why are they uncharted waters? After all, we have been developing software successfully for more than 60 years. That is true, but the previous software development took place largely under the premise that processes that were more or less understood were transferred into software. Banks and insurance companies are surely the most striking examples here. Thanks to software, processes have become more efficient and more effective; however, they have not changed in principle.

By their very nature, projects that run under the buzzword "digitalization" are different. Digitalization leads to completely new structures and processes that have no analog models and that have the potential to replace existing analog structures. Striking examples of this are airbnb as an alternative to the classic hotel business, or Spotify as an alternative to the music trade. This makes digitalization projects significantly more difficult to plan and to grasp, as you have to plan and think about not only the software, but also a completely new ecosystem. The risk of failure is also much higher, as by their very nature, digitalization projects are based much more strongly on suppositions and assumptions about the success and effects of the project.

Therefore, digitalization projects require a completely different approach to get a clear image of the target and to validate the many suppositions and assumptions at an early stage. Furthermore, any digitalization project should be met with a healthy level of doubt and criticism. Just because you *can* digitalize something, it does not mean that you have to do so. In many cases, the promised benefits are realized only to a limited extent, or unforeseen effects occur that cause a project to fail, that lead to unexpected follow-on costs, or that lead to a development that was not intended (again, the phrase "digital day laborers" serves as an example here).

So, where does the idea "analog is the new organic" take us? Just because something is new or different, it does not necessarily mean it is better. Vinyl records, as the embodiment of "analog music", are currently experiencing a renaissance, even though the CD is supposedly so much better. Sheer efficiency and speed also do not need to be the ultimate goal — one example here is slow food as a countermovement to fast food. Some companies are limiting constant networking by means of digital communications media by shutting down email servers at weekends and in the evenings to force people to take time out. We could use all of these examples to judge and condemn all things digital. However, Luddism and nostalgia as per the saying "everything was better in the old days" is certainly just as absurd as a blind belief in progress.

The important thing about the current developments around digitalization is that it is not an uncontrollable natural phenomenon that is overwhelming us. Digitalization is a manmade phenomenon and therefore it is the task of many people to determine what the digital future will actually look like. These people can take the motto "analog is the new organic" as a mission statement for realizing a sustainable digital world in which analog also has a place and can even become a significant economic factor — as the example of organic food impressively shows. Up until a few years ago, organic food was massively ridiculed and happily dismissed as a quirk of an upper layer of society. Today, you can find organic food in the standard range of any discount supermarket and what is more, its success is thanks to a significant digital contribution. Analog and digital are not contradictions; instead, they should be seen much more as a range. Well-thought out analog processes can be improved and can become more powerful through digital technology. And in just the same way, the full potential of digital processes can be revealed thanks only to a good portion of analog.

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## Autorenbeschreibung

As Chief Requirements Engineer at adesso AG, Dr. Kim Lauenroth heads a Competence Center with a focus on RE and product design. With his broad industry and project experience and his broad education (computer science, business administration and psychology, as well as a PhD in RE/product line development) he supports his customers in the strategic design of products and in the planning of product development processes. As chairman of the board of the International Requirements Engineering Board (IREB) e.V., Kim is involved in community work and in education and training in RE. At Bitkom, he heads the Software Designer Taskforce, where he is working on a new role model for software development: the digital designer.