Beyond Digital Technologies

Deeper understanding of digital as a driver of our VUCA world will decide about the future of your organization

Håkan Samuelsson, CEO of Volvo Cars, is a bold man. In January 2016 he stepped up to a podium and announced: »Our Vision Zero is that by 2020, nobody should be injured or killed in a new Volvo car.« It was instantly celebrated as a milestone by some and dismissed as illusory by others. Both sides could only agree on the fact that this would mean a revolution for mobility – and an iconic symbol that can be reached by the intelligent use of digital technologies.

by Markus Heingärtner and Richard Hübner

For a public accustomed to deaths and injuries on the road, the announcement shows a welcomed future of safe mobility. But is it even possible? It's safe to assume that Håkan Samuelsson is also a smart man who knows his organization's capabilities very well. A future of safe cars is achievable thanks to digitalization. Furthermore, it is only one of many examples giving an indication of the dynamics that arise with digitalization. Volvo aims to reach zero injuries within a very short time frame. Linearity and predictability of developments in a digitalized world no longer exist. The »exponential surprise factor« is becoming an important element of strategic planning (see illustration).

Stepping ahead

Understanding what is different about digital technologies and grasping their exponential dynamics is key. Kevin Kelly, longtime publisher of Wired magazine, derived twelve driving forces of digital technologies. For Kelly, such a force is described as development that, due to the inherent logic of technology, is similar to a law of nature, but its specific shapes like business models or technological solutions are not yet clear. Take mobile communication as an example. As a driving force, it was inevitable and also foreseeable in its general development many years ago. What was unforeseeable was that SMS would be one of its major applications. What could be such driving forces for the future?

»Cognify« / Artificial Intelligence (AI)

The next major technological step is comparable with the invention of electricity; AI is a way of creating »intelligent objects« that can make us more powerful. These objects are not limited to the physical realm, but also apply to scientific discovery processes such as chemistry as well as broad digital tools that we use. In comparison to the human mind, AI is extremely good at data memorization and processing. Based on AI, organizations will redefine their ways of problem solving, decision-making, administrating, information and communication management and other core processes of today's organization management. Significant improvements to savings in power generation, process quality and breast cancer diagnosis, for example already give a bold signal today as to what can be expected from AI and machine learning. ▶

The exponential surprise
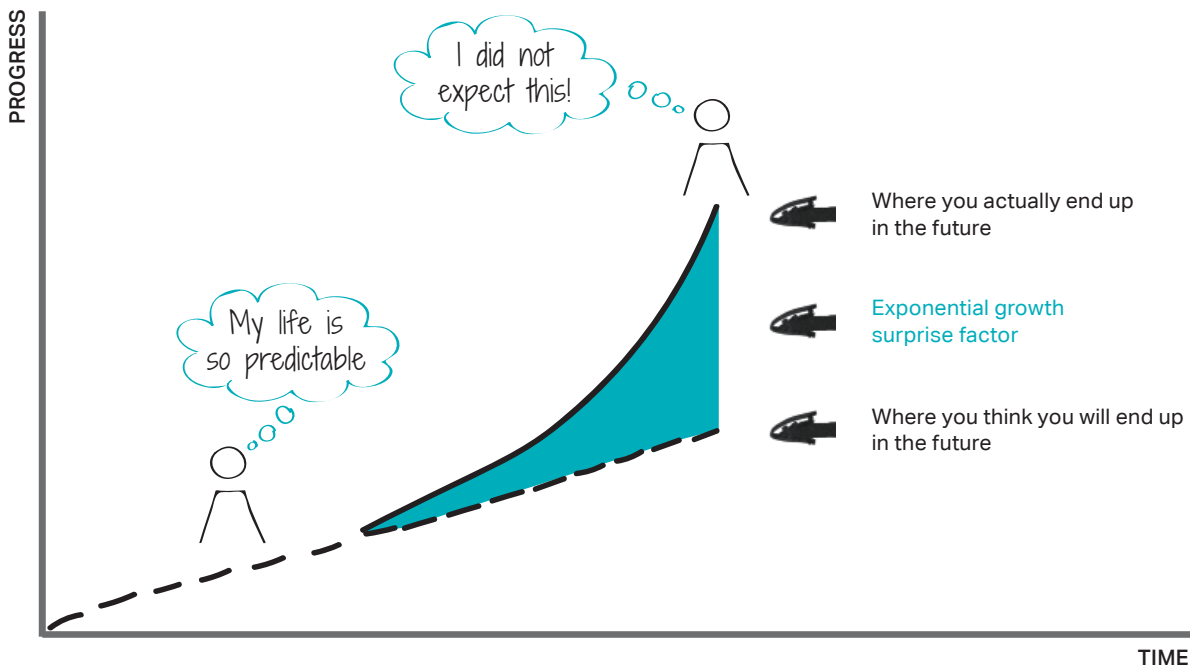
Source: Singularity University

From product to process

There will be a shift from pure physical products to digitalized physical products. This acceleration allows new types of usage and services. A washing machine might offer an individualized washing process, based on the specification from the smart/RFID chip-equipped T-shirt. This might lead to less water and energy consumption and better results. These newly digitalized products will redefine today's separation of product (T-shirt) and service (washing) and lead to as yet unknown new offerings.

»Sharing«

This trend is influencing how the overall economy works. Over two billion photos are shared on social media every day. Every person is becoming a producer of content and their own »Media Company.« Wikipedia and Stack Overflow are great examples of community-managed »knowledge bases of civilization.« For a long period of time this was a centralized business, run by editors like Encyclopedia Britannica and others.

Sharing is already destroying business models and developing new ones in parallel. Organizations need to review their own activities from a sharing perspective.

»Accessing«

Airbnb does not actually own any of the properties rentable through their platform. They are beyond possession and that marks the beginning of a new trend. More and more, we are using services instead of buying physical goods. Mobility-as-a-service (Car2go), software-as-a-service (SaaS) and even food-as-a-service are being discussed as future business models. Service-based businesses are focusing on access and timeliness rather than ownership of their underlying assets. This will result in faster customer service and cheaper prices.

»Screening«

Every display delivers dynamic information and encourages interaction. Each screen is easy to manage

and allows one- or bi-directional communication. The result is a more connected world. »A smartphone as a service, anywhere« is a possibility, such as »built-in screen, instead of drywall,« as well as »screens built in to stuff.« Screens will replace many signs, badges and shields and will thus deeply change the way information and communication are organized. There will be a shift from addressing the group to targeting individuals.

Be prepared

These driving forces show some of the chances digitalization brings. For organizations, great potential means a wide range of possibilities. With the increasing (exponential) number of possibilities, disorientation also increases. Failure through misuse or uncertainty in dealing with the new technologies leads to helplessness. The risk that we have to start over again from scratch increases, as well.

We know a lot of the emotions from VUCA environments which can be characterized by volatile dynamics, uncertain situations, complex relations and ambiguity. To use the dynamics of digitalization it is necessary to find answers for this environment:

Volatility	➡	Vision
Uncertainty	➡	Understanding
Complexity	➡	Clarity
Ambiguity	➡	Agility

So, with a good vision, understanding of digitalization, clarity about next steps and objectives as well as an agile approach to organization, leadership and project management, we will master digitalization fully.

In this sense, we understand an additional layer in Håkan Samuelsson's vision. By giving Volvo employees and customers the necessary orientation, the company is one step closer to successfully mastering the path to digitalization. They are therefore more likely to make profitable use of the potential digital technologies bring. It's worth taking them as an example and finding your version of a »Vision Zero« like Volvo did.

In our magazine you will find various methods for helping your organization master the dynamics of digitalization. ●

Requirements for a vision in the digital age
(Singularity University)

Massive
Audaciously big and aspirational.

Transformative
Can bring about significant transformation to an industry, community or the planet.

Purpose
There's a clear »why« behind the work being done. Something that unites and inspires action.

Examples of far-reaching visions

TED: »Ideas worth spreading.«
Google: »Organize the world's information.«
Tesla: »Accelerate the transition to sustainable transportation.«
Github: »Social Coding.«
Uber: »The best way to get wherever you're going.«
Pinterest: »The world's catalogue of ideas.«