Digitalisation - a modern chimera?

| Newsletter 2
June 2021

Digitalisation will not "pass", it is not just any technological trend. The only thing that will pass is the idea that it will pass.

(Michael Pachmajer)

I would not describe digitalisation as a mirage, as it is omnipresent in our lives today and in the future. The explosive power of digitalisation is as revolutionary as the invention of the steam engine - we just don't perceive the changes to the same extent. This is why digitalisation is a "deceptive image", because hope and decline lie very close together in it, depending on the angle of view and associated interests, digitalisation has a significant influence on socio-economic development:

Digitalisation - what is it, an attempt to explain it.

Wikipedia defines digitisation as:
"Digitisation (from the Latin digitus, finger and digit, number) is the conversion of analogue, i.e. continuously representable values or the recording of information about physical objects in formats that are suitable for processing or storage in digital technology systems."

Do we understand digitalisation better now? Another example, familiar to most people from their school days (physics, maths or computer science lessons), of what digitalisation means. The conversion of a term, e.g. "car", into a binary, data-processing readable format "01000001011101010111010001101111000010 10". Both have the same meaning, we should be able to visualise the same thing under both terms. But is this really the case? We are exchanging the analogue world of imagination, with emotions, experiences and behaviour, for a technically readable, testable and emotion-free view. No problem in principle, if this realisation is seen and used as support and not as an end in itself?

Benefits - Who can digitalisation help and who can it harm?

I am fundamentally convinced of the benefits of digitalisation, which can speed up processes, simplify decisions and humanise working environments. We just need to be aware that by reducing emotional complexity, we are maximising technical complexity. In other words, "gut decisions" are being replaced by "expert knowledge". Cognitive processes are compensated for by computing power, consuming behaviour replaces active action. This has an impact on our learning behaviour, our working environment and our social behaviour. Simple and, with the increase in behaviour-based learning artificial intelligence (AI), automatable activities are being replaced. As a result, increasingly complex demands are being placed on an increasingly well-trained workforce.

Effects on our working world:

Similar to the change that accompanied the industrial revolution of the last millennium, the change brought about by increasing digitalisation must also be seen.

Previous job profiles will change fundamentally, work will become more controllable with increasing automation and digitalisation, and work results will become more scalable and comparable. I would like to briefly illustrate this using the example of picking beverage deliveries.

Traditional: incoming orders (analogue (telephone, fax, e-mail)), in the warehouse the delivery was selected by a warehouse employee on the basis of shelf numbers, compartment numbers etc. attached to the product groups using order forms, palletised and prepared for collection. The frequency of preparation was heavily dependent on the daily performance of the employee, the warehouse structure (knowledge of location, quantity) and mobility in the warehouse.

Today/future: Orders are received digitally (internet or immediate digital conversion of analogue accesses), the employee is equipped with a voice-controlled picking system that assigns the location of the goods to the employee and confirms palletisation and handover. By optimising the order receipt, picking and handover process, the throughput time is accelerated and continuously improved by means of routes and cycle frequency.

However, this abbreviated, sketchy example also makes it clear that digitalisation changes the employee's workflow, making it externally controlled and more controllable in terms of performance (working time, break frequency, idle time, packaging time). If no suitable measures are taken within the company to deal with the findings in relation to the individual, there is great potential for social explosives.

Effects on our social environment:

Increasing digitalisation (voice-controlled systems are used in many households, mobile phones, computers, internet, networked devices are available) is leading to a complete change in communication behaviour. Social interaction does not take place "face to face" through personal contact, but increasingly digitally, "mobile". This has an impact on language use, language skills, social behaviour and information behaviour. Tendencies towards greater personal isolation due to virtualisation, changed behaviour in relation to advertising messages and consumption and thus effects in the socio-economic context must be taken into account.

The thought process

Digitalisation cannot be stopped and should not be stopped. Increasing globalisation, continuous networking worldwide, growing environmental awareness and changes in communication, work and social behaviour can be positively influenced by the more intensive use of digital technologies.

In my view, digitalisation must be seen as supporting people and not as replacing them.

Digitalisation must not be seen as an end in itself for the sake of personal gain

Digitalisation based on today's technologies often serves to optimise workflows, business processes or communication structures. If this is done with people, employees and users, it is a very positive aspect, as it makes it possible to improve monotonous, risky and error-intolerant activities and ensure consistent quality.

Future digitalisation can do much more: with the growing use of artificial intelligence, the use of behaviour-based learning and the optimisation of technical processes, it is possible to shape the requirements of the future.

Examples here include: Autonomous driving, reducing emissions by means of intelligent energy control, digitalisation for knowledge transfer.

This will also establish completely new job profiles whose main requirement will be the combination of technology, economy, ecology and social skills.

Digital Transformation Management

The job description of digital transformation management will become one of these roles within business organisations. It combines aspects of business administration, organisational theory, process management, project management and IT. Each of these disciplines will remain relevant individually, but they must be increasingly interlinked.
The Digital Transformation Manager is not a distinctive specialist who gets lost in the details, but should be seen as a supporter of the socio-economic change brought about by digitalisation with excellent communicative, structural and agile skills.

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