KEYNOTE HANDOUT

„THE HUMAN FACTOR: OPPORTUNITIES AND RISKS IN DEALING WITH DIGITAL TRANSFORMATION IN THE AGE OF AI & CO."

3DEXPERIENCE Conference

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1. Key Theses of the Presentation

To address the challenges of digital transformation trends, it is essential for all companies to continuously engage with the changing needs of target groups driven by technological innovations. This involves precisely and, above all, objectively analyzing what the actual needs of the target group are and how this can alter the market definition (e.g., a) journalistically curated information and entertainment broadcast on mass media OR entertainment and information from any source, anytime and anywhere; b) driving a car OR individually comfortable mobility).

In this process, however, established market players often encounter similar problems as those described by Clayton M. Christensen in his 1997 work "The Innovator's Dilemma" (e.g., media companies dealing with social media and streaming; the automotive industry handling e-mobility and autonomous driving). Due to the speed of digital transformation, new, non-industry competitors will demand even higher dynamism and smarter, more comprehensive digital solutions from existing market participants to satisfy future customers. To overcome these challenges, companies must be able to adapt themselves continously and focus on two crucial areas:

A) The strategic management of digital transformation

Here, the focus is on long-term goals and sustainable (company) visions. The foremost task is to no longer think in traditional dimensions of success such as revenue, market share, etc. Instead, it is crucial to understand that customers and employees will remain loyal only if the company can clearly create value. This value proposition must be valid in the long term and simultaneously broadly defined so that it can be flexibly adjusted as new technologies emerge.

Central to strategy development is that the best business model, especially for young target groups, is no longer defined by the best individual products, but rather through a highly customer-centric and integrated ecosystem of all essential functions to fulfill their needs.

The integration of AI in services and products can help with this task, therefore understanding the key forms of machine learning is essential (cf. Gröner/Heinecke: „Kollege KI"):
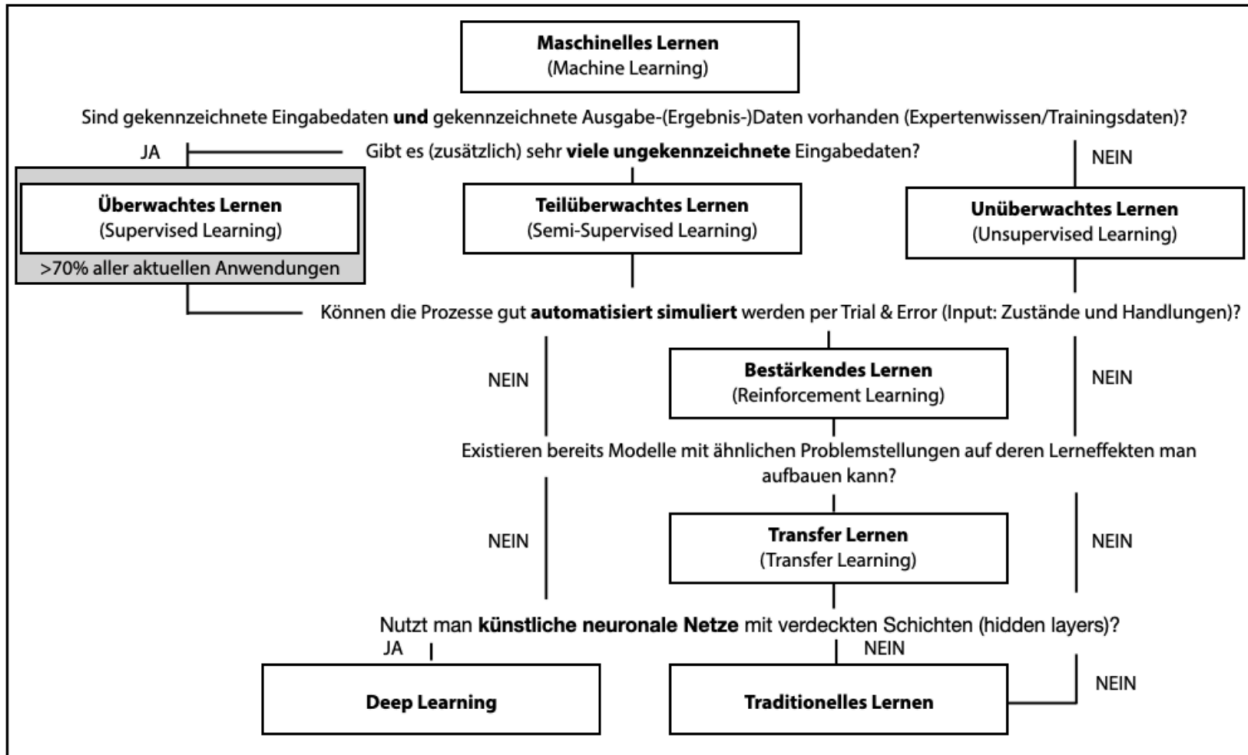
The latest development is Generative AI, where algorithms are capable of generating new data based on existing datasets, that is similar to the training data. These algorithms rely on deep neural networks trained through unsupervised, supervised, and reinforcement learning techniques. They enable the creation of images, texts, music, and even videos that did not previously exist. Companies can utilize generative AI, for instance, to create personalized advertisements and content that better match the needs and preferences of customers. In medicine, it can aid in developing new drugs by generating molecular structures that could potentially serve as active compounds. Additionally, in research and development, simulations and modeling can be accelerated and improved.

One significant potential of generative AI lies in democratizing creativity and technology. Access to powerful AI tools allows individuals without deep expertise to realize creative and technical projects. This can lead to broader participation and innovation, as more people are capable of bringing their ideas to life and sharing them. Despite its numerous benefits, the use of generative AI also carries significant risks. One of the largest risks, alongside ethical and legal grey areas, is the potential for misuse. Generative AI can be used to create deepfakes, which produce realistic but fabricated videos or audio files, leading to misinformation and fraud. This could undermine trust in media and digital content, with substantial societal and political consequences.

Regardless of the necessary understanding of how AI functions, the following competencies are essential for managing the challenges of digital transformation:

Competencies for managing the challenges:

1. Continuous reevaluation of markets and business models from the perspective of target groups.
2. Prioritizing customer benefit (customer experience) above all else (assistance before sale, personalized attention to customer needs over rigid products, consistent experiences over internal processes, building digital relationships instead of focusing solely on product sales).
3. Breaking down the online/offline dichotomy with a focus on the "mobile" interface.
4. Consistent data collection and analysis using AI-powered cloud solutions.
5. Collaborations with adjacent areas to expand the business field. Strategic data management (acquisitions and product developments).

B) The implementation of the strategy within the company

Here, it's about the day-to-day implementation of AI-driven strategies within the company. The following skills and attributes are particularly essential, especially in relation to leading young employees:

a) **Courage,** especially concerning clear direction setting and focus/complexity reduction, is crucial.
b) **Trust,** in oneself, in customers, in employees, and in the existing competitors of the old market (strategic collaborations)
c) **Credibility**
d) **Authenticity** and last, not least,
e) **Creativity and New Thinking.**

2. Reading Recommendations:

- „Innovator's Dilemma" (Clayton Christensen)
- „The Paradox of Choice" (Barry Schwartz)
- „The Power of Habit" (Charles Duhigg)
- „Der Team-Entwickler" (Jens Corssen/ Stefan Gröner)
- „Schnelles Denken, langsames Denken" (Daniel Kahnemann et. al.)
- „Kollege KI" (Stefan Gröner et al).

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