AI GUIDELINES

Deutsche Telekom

Preamble

Two of Deutsche Telekom's most important goals are to keep being a trusted companion and to enhance customer experience.

We see it as our responsibility - as one of the leading ICT companies in Europe - to foster the development of "intelligent technologies". At least either important, these technologies, such as AI, must follow predefined ethical rules.

To define a corresponding ethical framework, firstly it needs a common understanding on what AI means. Today there are several definitions of AI, like the very first one of John McCarthy (1956) "Every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it." In line with other companies and main players in the field of AI we at DT think of AI as the imitation of human intelligence processes by machines, especially computer systems. These processes include learning, reasoning, and self-correction.

After several decades, Artificial Intelligence has become one of the most intriguing topics of today – and the future. It has become widespread available and is discussed not only among experts but also more and more in public, politics, etc.. AI has started to influence business (new market opportunities as well as efficiency driver), society (e.g. broad discussion about autonomously driving vehicles or AI as "job machine" vs. "job killer") and the life of each individual (AI already found its way into the living room, e.g. with voice steered digital assistants like smart speakers).

But the use of AI and its possibilities confront us not only with fast developing technologies but as well as with the fact that our ethical roadmaps, based on human-human interactions, might not be sufficient in this new era of technological influence. New questions arise and situations that were not imaginable in our daily lives then emerge.

We as DT also want to develop and make use of AI. This technology can bring many benefits based on improving customer experience or simplicity. We are already in the game, e.g having several AI-related projects running. With these comes an increase of digital responsibility on our side to ensure that AI is utilized in an ethical manner. So we as DT have to give answers to our customers, shareholders and stakeholders.

The following Digital Ethics guidelines state how we as Deutsche Telekom want to build the future with AI. For us, technology serves one main purpose: It must act supportingly. Thus AI is in any case supposed to extend and complement human abilities rather than lessen them.

Remark: The impact of AI on DT jobs – may it as a benefit and for value creation in the sense of job enrichment and enlargement or may it in the sense of efficiency - is however not focus of these guidelines.

T·· LIFE IS FOR SHARING.

1. We are responsible.

The human always remains responsible. Our solutions come with a clear definition of who is responsible for which AI system or feature. We are in charge of our products and services. And, we know who is in charge for partner or third party solutions.

With AI technology being in its infancy, we are aware of our responsibility in development – from the very beginning. We make sure that we clarify which initiative or product owner has which responsibilities. For partners or third parties, we define clear guidelines for when a partnership can be established. And, we declare which duties are connected to the respective AI parts.

2. We care.

We act in tune with our company values. Our systems and solutions must subordinate to human-defined rules and laws. Therefore, in addition to our technical requirements, our systems and solutions have to obey the rules and laws that we as Deutsche Telekom, our employees – and human beings as such – follow.

AI systems have to meet the same high technical requirements as any other IT system of ours, such as security, robustness, etc. But since AI will be (and already is) a great part of our everyday lives, even guiding us in several areas, AI systems and their usage also have to comply with our company values (Deutsche Telekom's Guiding Principles and Code of Conduct), ethical values, and societal conventions. We have to make sure of that.

3. We put our customers first.

We enrich and simplify our customers' lives. If an AI system or the usage of customer-related data helps us to benefit our customers, we embrace this opportunity to meet their demands and expectations.

The aggregation and use of customer data – especially in AI systems – shall always be clear and serve a useful purpose towards our customers. Systems and processes that support in the background are as important as services that interact with our customers directly.

4. We are transparent.

In no case we hide it when the customer's counterpart is an AI. And, we are transparent about how we use customer data. As Deutsche Telekom, we always have the customer's trust in mind – trust is what we stand for.

We are acting openly to our customers. It is obvious to our customers that they are interacting with an AI when they do. In addition, we make clear, how and to which extent they can choose the way of further processing their personal data.

5. We are secure.

Data security is a prime quality of Deutsche Telekom. In order to maintain this asset, we ensure that our security measures are up to date while having a full overview of how customer related data is used and who has access to which kind of data.

We never process privacy-relevant data without legal permission. This policy applies to our AI systems just as much as it does to all of our activities. Additionally, we limit the usage to appropriate use cases and thoroughly secure our systems to obstruct external access and ensure data privacy.

6. We set the framework.

Our AI solutions are developed and enhanced on grounds of deep analysis and evaluation. They are transparent, auditable, fair, and fully documented. We consciously initiate the AI's development for the best possible outcome.

The essential paradigm for our AI systems' impact analysis is "privacy und security by design". This is accompanied e.g. by risks and chances scenarios or reliable disaster scenarios. We take great care in the initial algorithm of our own AI solutions to prevent so called "Black Boxes" and to make sure that our systems shall not unintentionally harm the users.

7. We maintain control.

We are able to deactivate and stop AI systems at any time (kill switch). Additionally, we remove inappropriate data to avoid bias. We have an eye on the decisions made and the information fed to the system in order to enhance decision quality.

We take responsibility for a diverse and appropriate data input. In case of inconsistencies, we rather stop the AI system than pursue with potentially manipulated data. We are also able to "reset" our AI systems in order to remove false or biased data. By this, we install a lever to reduce (unintended) unsuitable decisions or actions to a minimum.

8. We foster the cooperative model.

We believe that human and machine intelligence are complementary, with each bringing its own strength to the table. While we believe in a people first approach of human-machine collaboration, we recognize, that humans can benefit from the strength of AI to unfold a potential that neither human or machine can unlock on its own.

We recognize the widespread fear, that AI enabled machines will outsmart the human intelligence. We as Deutsche Telekom think differently. We know and believe in the human strengths like inspiration, intuition, sense making and empathy. But we also recognize the strengths of AI like data recall, processing speed and analysis. By combining both, AI systems will help humans to make better decisions and accomplish objectives more effective and efficient.

9. We share and enlighten.

We acknowledge the transformative power of AI for our society. We will support people and society in preparing for this future world. We live our digital responsibility by sharing our knowledge, pointing out the opportunities of the new technology without neglecting its risks. We will engage with our customers, other companies, policy makers, education institutions and all other stakeholders to ensure we understand their concerns and needs and can setup the right safeguards. We will engage in AI and ethics education. Hereby preparing ourselves, our colleagues and our fellow human beings for the new tasks ahead.

Many tasks that are being executed by humans now will be automated in the future. This leads to a shift in the demand of skills. Jobs will be reshaped, rather replaced by AI. While this seems certain, the minority knows what exactly AI technology is capable of achieving. Prejudice and sciolism lead to either demonization of progress or to blind acknowledgment, both calling for educational work. We as Deutsche Telekom feel responsible to enlighten people and help society to deal with the digital shift, so that new appropriate skills can be developed and new jobs can be taken over. And we start from within – by enabling our colleagues and employees. But we are aware that this task cannot be solved by one company alone. Therefore we will engage in partnerships with other companies, offer our know-how to policy makers and education providers to jointly tackle the challenges ahead.

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