Operationalizing AI Ethics – 4 Current Challenges

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Increasingly, the debate on AI ethics focusses on the operationalization and regulation of AI ethics. While in the beginning, primarily ethical principles have been proposed (Hagendorff 2020), in the meantime various initiatives have tried to flesh out these principles on a medium level to give regulators and policy makers more reference points (DIN Roadmap; IEEE7000). Especially with recent legal endeavors (EU AI Act, UNESCO Recommendations, OECD), these initiatives have picked up momentum. Having been part of two of them (AIEIG 2020, VDE Spec 2022), in this talk I will highlight four current challenges that come with this attempt at operationalization and regulation:

1. The Boundary of AI: What do we regulate, when we regulate "AI"? An algorithm? An application? The institution utilizing it? How far down the supply chain do we need to go?
2. Human Oversight: It is generally accepted that for certain applications, humans need to be "in the loop"/"in command". But for which applications, and is this really feasible? How do we deal with individual or institutional over-trust/over-reliance?
3. Risk-Levels: Most proposals use a risk-based approach with regard to the different application areas, often defining a number of "risk classes", "levels of criticality" etc. The question here is how many levels should there be? Where and how to draw lines between different risk classes and which application areas should pertain to which risk class?
4. Sustainable AI: Although sustainability aspects have played some role in most of these initiatives, only very recently there has been attempts to develop a framework from the perspective of ecological, economic, as well as social sustainability. Especially the particular ecological challenges that come with AI applications (and the infrastructure needed) are so far underrepresented in the operationalization and regulation efforts.

By addressing these challenges, AI ethics can not only contribute to the overall understanding of these issues, but at this stage of the political and legal discussion make a big impact on regulation and policy-making processes.