

Five Theses on the Ethics of Innovation



Text: Dr. Johan Rochel, 2019
Photographic Credits: Stephan Bogner,
Philipp Schmitt, Jonas Voigt:
«Raising Robotic Natives», 2016
Design: Hausgrafik

ethix – Lab for Innovation Ethics is made possible
by Engagement Migros, the development fund of the
Migros Group.

www.engagement-migros.ch

ENGAGEMENT
A DEVELOPMENT FUND OF THE MIGROS GROUP

The present ethix white paper lays out five theses on the ethics of innovation, outlining why innovation and its societal impacts should become a key focus for applied ethics. They also outline how the ethical debates surrounding innovation should not only be part of an intense dialogue within companies and organizations, but also be subject of a vivid public discourse.

- | | |
|---|---------|
| 1. Innovation is not ethically neutral. | Page 4 |
| 2. We need an ethics of innovation. | Page 6 |
| 3. The ethics of innovation should be a participative and creative ethics. | Page 9 |
| 4. The ethics of innovation needs space and diversity. | Page 10 |
| 5. To foster a long-term impact, we need to invest in people and processes. | Page 11 |

1. Innovation is not ethically neutral.

The story of innovation is often told as a story about a bread knife. This knife might be used to slice bread, but also to kill one's neighbor. By itself, the bread knife is neither good nor bad, so the argument goes. Its moral imprint is determined by the way it is employed by its users: cutting bread or killing people. These actions result from personal choices that reflect individual values and motivations. Innovation, especially technological innovation, is often compared to the bread knife.

Using this analogy, it would follow that innovation is a neutral instrument, of ethical relevance is how it is utilized. This analogy is usually promoted by tech companies trying to deflect ethical responsibility by highlighting users' choices and behaviors. But the innovations we use – be it a new digital tool, a new drug or a new way to organize work in a company – are not comparable to the knife.

Following a rather broad definition, innovation is a novelty inserted into a specific societal context. This novelty might be of technological, economic, managerial, legal, political, cultural or social nature. The key point: something new is introduced into a specific field of human activity, such as a company, a market, cultural life, or a legal order. The convergence of novelty and real life characterizes innovation and distinguishes it from invention.

Innovations are complex artifacts or concepts which embody specific ethical values. An innovation is conceived,

designed, developed, and produced with the explicit or implicit ambition of realizing specific objectives and values. Sticking to the analogy of the knife, it can easily be argued that the objectives and values behind the conception of an army knife or a bread knife are inherently different. There is an unquestionable ethical distance between the army knife and the bread knife.

This argument is relevant not only for all the people involved in conceptualizing and creating an innovation, but also for all its users. Designers of an innovation might not always be fully aware of the values they infuse into their creation. They might misunderstand their clients' mission, miss negative side effects, or underestimate potential misuses. In addition, users also contribute to the realization of specific values independently of design intentions. Potential design flaws are exacerbated by individuals concretely using an innovation and subsequently expanded upon in potentially unforeseen ways. It is an innovation's real-world deployment which is decisive in assessing its compatibility with values we consider important as employees in an organization, as citizens, or even as human beings in a general sense. Creators, designers, engineers, users: we all have to take responsibility for the actions and decisions we make in light of our personal values.

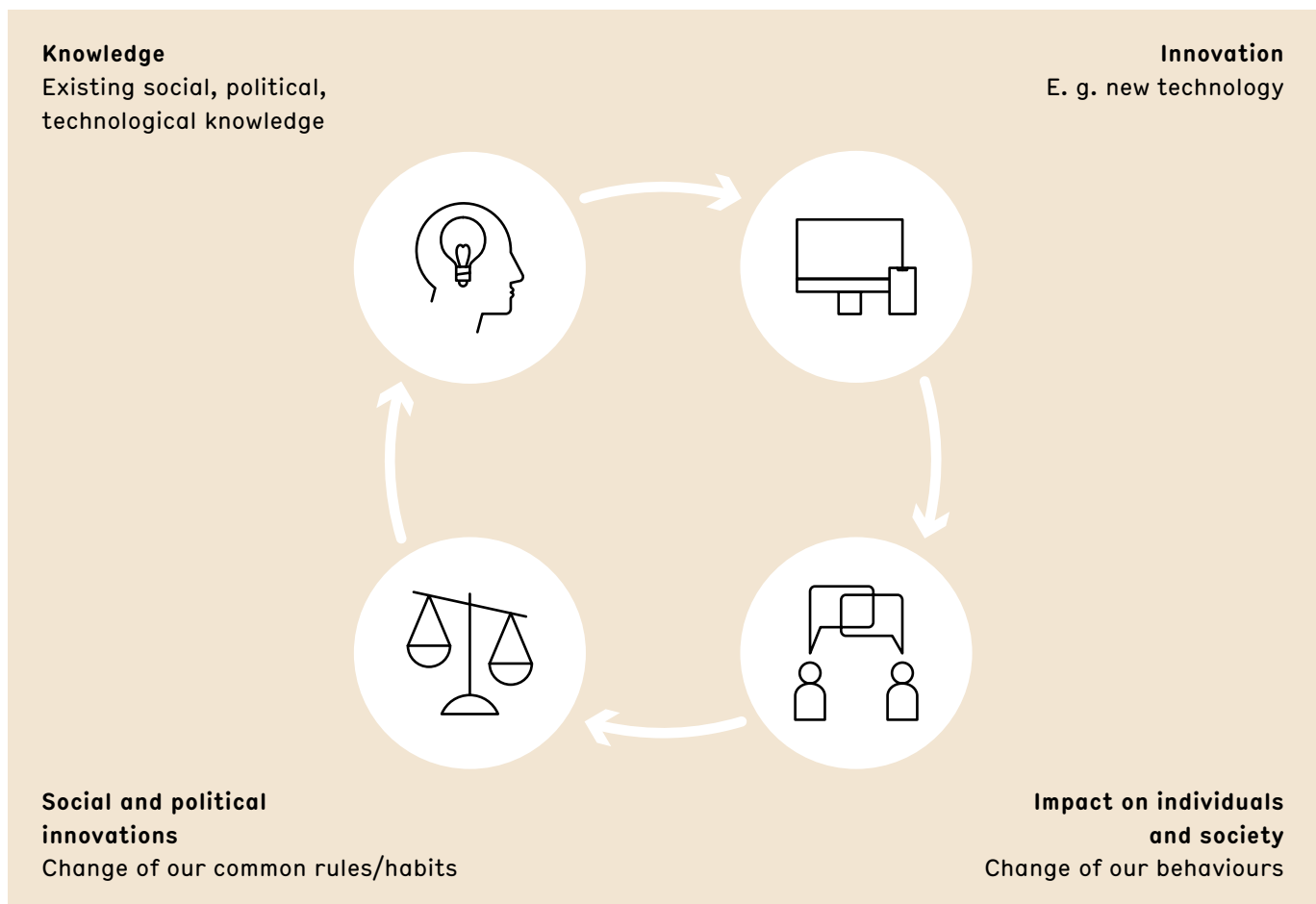
Therefore, neither the innovation itself, nor the way we use it can be neutral. We need an ethics of innovation to address which values innovations promote and challenge.

Is Facebook Ethically Neutral?

Should we accept the idea that a social network like Facebook is comparable to a neutral bread knife: an instrument which people can use for better or worse purposes? No, Facebook relies upon and promotes specific values. The conception of the platform, the use of personal data to generate specific relations between people and content or the creation of rules on what is publishable and what not, cannot be ethically neutral. The designers and engineers pursue specific objectives and promote certain values. The very nature of the innovation's structure impacts how we can interact with it and what possibilities it opens for us. Of course, in the context of these mechanisms, users play an important role: the way we use an innovation such as Facebook is relevant and we are accountable for this use.

2. We need an ethics of innovation.

In order to make ethical dimensions of innovation explicit, a theoretical model of innovation is suggested. By reducing the extreme complexity of innovation processes, it allows us to focus on the relevant ethical questions.



Each of these steps raises different types of ethical questions. The following classification mainly serves to better distinguish the ethical questions at stake. However, it is clear that the four categories are fundamentally intertwined.

1. Value and knowledge base

The first group of questions focuses on the knowledge and values that shape a technology's emerging blueprint. This dimension is the most important. It embodies the values which underlie and drive specific innovations. Values occur in the context of pre-existing social, political, and technological structures.

2. Ethics of a specific innovation

The second group of questions directly raises the issue of responsibility for all the actors involved in the development chain of an innovation. What are the responsibilities for researchers, R&D specialists, designers, producers, and sellers in the concrete manifestation of an innovation? Users, by bringing the innovation into real-world circumstances, also carry responsibility in this process.

3. Societal impact of a specific innovation

The wide diffusion of innovation raises justice questions about the positive and negative impact of specific innovations on individuals and society. It concerns issues of equality, solidarity, or sustainability. An important part of these questions related to issues of justice is about transitions: how do we deal with winners and losers of the innovation-based transitions and transformations?

4. Impact on fundamental categories and boundaries

The fourth group of questions touches upon the way we frame and conceive the world. Innovations shift the way we define what is human or non-human, natural or artificial, healthy or unhealthy. These categories are crucial parts of the narratives we adopt to structure our experiences as individuals, companies, and as a society.

The Example of Smart Cameras

Smart cameras use powerful algorithms to gather and analyze data for predictive purposes. They might be used by a private company (monitoring its employees) or by the state (surveillance of critical infrastructures). This technological innovation raises ethical questions in the four categories identified:

1. Value and knowledge base:

The development of this technology occurs within the context of established technical knowledge and the backdrop of shared societal values. These values vary strongly across countries and cultural regions.

2. Ethics of a specific innovation:

The technology raises crucial questions about data ethics (for example, privacy), predictive analysis, and more generally AI. In this context, questions of responsibility of all the actors involved in the development and deployment of this technology are raised.

3. Justice questions:

The wide use of smart cameras will cause important changes, arguably positive ones (e.g. more security), but also negative ones (generalized surveillance). Furthermore, smart cameras will influence how people interact with each other. Are these scenarios compatible with our values?

4. Narrative:

The wide use of smart cameras could profoundly reshape how we define privacy and thus individual freedom. It might change our expectations towards fellow-citizens or the State and impact the way people behave in society.

3. The ethics of innovation should be a participative and creative ethics.

The ethics of innovation is about identifying and implementing values we consider important. Its key conviction is that, by having a better overview of the ethical risks and resources associated with a specific innovation, individuals and organizations are better equipped to make informed and responsible decisions concerning the creation and use of innovations.

The concept of values is understood and used in the broadest sense including: commitment, principles, or convictions that have a fundamental relevance to us. Values inform the objectives one pursues as an individual and the way one pursues them. In this way, values become essential elements of one's personality and, collectively, key principles for organizing life in society.

If we want to impact the way innovation is conceived, designed and implemented by companies, public institutions, and citizens, we need a dialogue on the values we want to promote as a society. This requires a participative and creative process through which we can

integrate different perspectives and competences. Ethics is not just an individual thought exercise. Rather, it should also be a collective endeavor through which we define and negotiate what is important and relevant to us as members of a society.

This ethics of innovation should be a creative ethics. It's main objective is to identify the ethical opportunities and risks of innovations and use our commonly defined value base to address them. It raises the fundamental issue of consistency between our envisioned commitments and the concrete actions and decisions we have to take in situations of uncertainty. The ethics of innovation invites us into a reflexive multi-perspective movement from values to actions, and back again. This back-and-forth movement helps specify the values we are prepared to promote. The creative force of this ethics of innovation comes from this permanent challenge between our individual and collective decisions and motivates consistent decisions.

4. The ethics of innovation needs space and diversity.



The ethics of innovation needs specific settings to flourish. It needs open forums, which might be organized within a company, a public institution, or as part of a public debate. These forums should allow people and teams to experiment, test, and improve their ideas. They are spaces, where participants can freely think and exchange ideas, where distinct and complementary competences converge and enrich each other. Innovation can only be fully grasped when viewed from different perspectives.

In these open forums, the role of the philosophers undergoes a fundamental shift. Their function is no longer to proclaim the Truth or the Good. Rather, they become curators in a participative process that investigates the ethical stakes of an innovation, bringing to the forefront the reflection on values and assuring consistency.

This creative and participative approach can be used in diverse constellations, ranging from team workshops within big organizations to public participation forums. Thanks to their openness and commitment to participation, the forums allow interested citizens to engage with a specific innovation and its impact on society.

5. To foster a long-term impact, we need to invest in people and processes.

In order to identify and address ethical opportunities and risks, an ethics of innovation needs to support individuals in making their voices heard. In the age of information and data, the competence to establish values is key for proactively framing societal change processes. Thinking in terms of values is a powerful remedy against silo-thinking, because values are, by their very nature, made to transgress categorizations and homogenous views. The competence to arbitrate among different values in order to reach a solid decision is an essential element of the ability to think critically, but also to act coherently.

For most individuals, these competencies are not natural assets. They are acquired through training, in settings which allow them to flourish. The process of ethical reflection itself is perhaps the best method to develop ethical competencies. Individuals who engage in ethical reflections have a double advantage: they acquire individual ethical competencies by going through these reflective processes and they develop better collective decision-making abilities with their peers. These competencies are particularly important for individuals in leadership positions. In the innovation ecosystem, it is the founders of startups, entrepreneurs, investors, and enablers that motivate others to follow them on the difficult path of creating and implementing something new. Because of their position, they are at the core of innovation processes. In that way, an ethics of innovation can push innovation towards actual progress.



