In the “Trusted Health Ecosystems” project we are creating a concept and a product vision for a national health platform of the future. This text is part of the overall concept which is published at www.trusted-health-ecosystems.org.

# Trust in digital systems

**Behind our vision of a national health platform is an overarching value: trust. Data misuse, nontransparent algorithms, increases in cyberattacks, disinformation, and the unresolved question of how the digital environment should be regulated and controlled are together creating a profound crisis of confidence that is shaking the foundations of our society in many areas of life. Yet trust in digital ecosystems is critical to ensure their successful design and long-term existence. This is especially true in the healthcare sector.**

Trust is the foundation on which all interactions and transactions within a digital ecosystem are based. People must be able to trust that their personal data is secure, that information is reliable and that their interests are being respected. But how can this trust be generated? The answer can be derived from the risks faced by users of digital platforms. For example, in addition to the risk of data misuse by platform operators, there are also the dangers of hacker attacks that target personal data, of discrimination and manipulation through nontransparent algorithmic systems, and of unfair business practices. Accordingly, a canon of factors useful in inspiring confidence has emerged. These must be taken into account when building a national health platform:

- Compliance with data protection regulations and legal standards must be a non-negotiable aspect. Privacy protections and compliance with applicable laws are indispensable for gaining and maintaining users’ trust.
- Digital platforms must implement robust security measures in order to offer the best possible protection against threats such as cyberattacks and data leaks. In addition, users should be given the opportunity to adjust their own security settings.

- Information and services should meet high standards of quality and reliability. This includes the involvement of patient organizations and experts in the development and monitoring of the platform (see InfoQ: Making quality visible).
- Each and every interaction must be fair for all users. Platform operators must ensure that their digital systems are fair, equitable and nondiscriminatory in order to gain and maintain trust over the long term.
- Transparency is another key factor: Users must be able to understand how their data is collected, processed and used. This also applies to the use of artificial intelligence and machine learning functions.
- Beyond the technical and legal aspects, communication also plays a key role. Clear information about privacy and security issues will help people better understand the risks and opportunities of using digital platforms, and increase their willingness to place their trust in these systems.
- The participation of users in the development process can also play an important role in increasing trust in a national health platform. Moreover, including different target groups and perspectives in the development process promotes diversity and inclusion within the digital ecosystem itself.

In an era of disinformation and conspiracy myths, we need trusted digital spaces where we can get reliable information from trustworthy sources, where data sovereignty is respected and where transparency is a fundamental operating principle. Trust in digital systems can emerge only through the interplay of many different key factors that should play a significant role in shaping a national health platform. All actors involved in the ecosystem need to work hand in hand to strengthen these foundations, together making the platform a trusted space.

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