

Anonymisation of personal health data through the generation of digital avatars



The Mission

The utilisation of health data promises immense opportunities for medicine and research, however the protection of personal data is extremely important in this field. The aim of the AVATAR project is to resolve such contradictions by anonymising patient-related data records and merging them into so-called “data avatars“. Research institutions, clinics and healthcare companies that cooperate in the project aim to make an important contribution to improving patient health in the long term.



Project Aims

- Development of anonymisation procedures based on selected data types and structures
- Use of a decentralized data pool for data requests
- Identification of GDPR-compliant framework conditions for data anonymisation (specific usage requests, occasion-related consent)
- Provision of clinical data to improve medical devices
- Simplification of the consent process for data use
- Development of demonstrators, education on the benefits of health data and creating incentives for data donation



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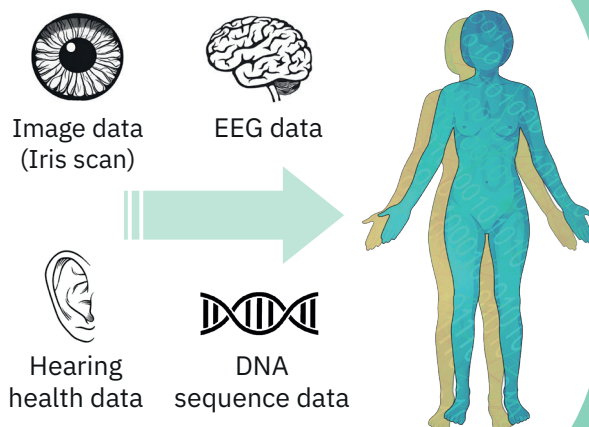
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AVATAR Use Cases



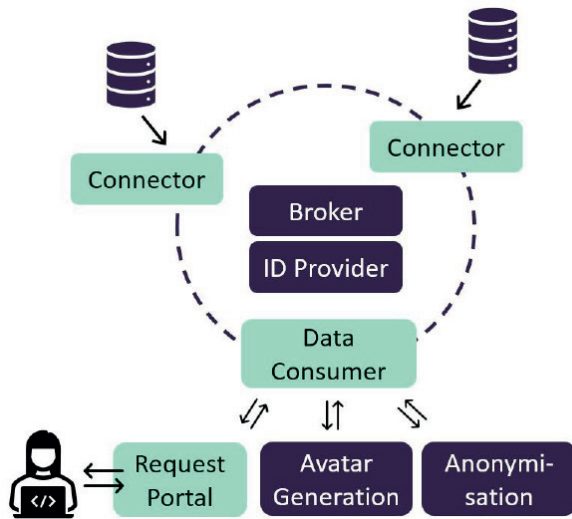
- Support for basic and medical research
- Accelerated, cost-effective development and approval of new medical devices
- Improved monitoring of medical devices (data utilisation for post market surveillance)
- Incorporation of user experiences for manufacturers

The AVATAR: An anonymised, usable data set of one or more patients

Further information: avatar-projekt.de



The AVATAR Architecture



Development of a **federated system** for querying anonymised health data

Linking of diverse data sources to form a **data space** (based on the specifications of the International Data Space Association)

Flexible connection of suitable anonymisation algorithms (generative AI, differential privacy, L-diversity)

Configurable orchestration of services through a process control



Knowledge Transfer to Society: The Open Science Lab

- Showcasing of project results for teaching, learning and visualisation purposes
- Target audience: data donors, data users, interested public (students, doctors, researchers)
- Comprehensible presentation of the technical processes based on selected use cases
- Communicating the potential and incentives for data donation



Interdisciplinary Competence Cluster

- 18 partners from medicine, industry, science and IT law
- Four additional joint projects (Medinym, KI-AIM, PATH, NEMO) and partners



GEFÖRDERT VOM

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