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Bridge the digital divide - foster digital health inclusion!

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What is the problem? Wearables and apps, also known as digital health technologies (DHT), are used by many to obtain information about their own health or to improve it. Health data from DHTs is not only of great value to users, but also a key building block for digital innovation in healthcare. DHT-generated health data provide new insights for policymakers and businesses, or enables new medical products and research opportunities.

However, a key problem in the implementation of digital health innovations is the so-called 'digital divide'. This refers to the fact that disadvantaged and less healthy people tend to benefit less from the digitalisation of healthcare. A key reason for this is varying patterns of DHT usage. DHT are increasingly used by those who are socially better-off and enjoy a generally better health as compared to others. As a result, there is a lack of DHT-generated for those groups that could potentially benefit most from digital health innovations.

Whom will you be working with? You will be working with GESIS' Computational Social Science Department and CRONN. GESIS is a leading institution in the field of quantitative social sciences that collects, archives and makes available representative population data on a broad scale. CRONN currently develops an API for integrating a wide range of DHT and extracting DHT-generated data.

What could a solution look like? The aim of the project is to build a platform to integrate DHT. The platform will make it possible to gauge the extent to which usage patterns and socio-demographic characteristics of DHT users determine the information content and quality of the health data generated. On this basis, targeted strategies will be developed to reduce behaviour-related health data inequalities and prevent the digital divide from increasing further.

How can you contribute to a possible solution? You will help GESIS and CRONN to build a platform to integrate DHT generated data and implement it to collect representative DHT usage patterns. In addition, you will develop your own scientific questions and prepare and analyse the data required.

What should you bring to the table? Ideally, you are interested in health topics and are enthusiastic about digital innovations in the health sector. Basic knowledge of Python and/or R as well as SQL and an interest in statistical topics are the best prerequisites for a quick start in

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the project. If you also enjoy interdisciplinary teamwork and good communication, you are well-prepared for a successful project!

Potential topics for Bachelor theses

- Social gradient in DHT usage
- Trust in DHT
- Social determinants of health data sharing
- Tradeoffs between risks and utility of DHT usage
- TBD

Benefits for students

Build a platform for digital public health data

User cases for potential BA thesis

Contribute to transforming digital divide to digital inclusion

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