M ≡ T < about-mhealth.net

## **Timeline**

## MHEALTH AS A NATIONAL AND GLOBAL PHENOMENON: MOVING IN AND OUT OF GERMAN CONTEXT

2019

2020

2021

2022

2023

## **Evolution** of mHealth

## META Research project 2018-2024

2007 first time Quantifed Self

Early 2010s mHealth for chronic care

Early 2010s Self-tracking trend starts with Fitness/Wellness apps and device:

2014 Loopers (people with Type 1 Diabetes) create the first algorithm for an automated insulin delivery system

2015 FemTech as emerging subfield of mHealth

2016 The European Union adopts the General Data Protection Regulation (GDPR)

2016–2018 Startups like Ada Health are starting to enter the consumer health market in Germany

> 2018 WHO mHealth Report by Director General: Vision for mHealth to play major role in universal access to quality health care systems particularly for hard-to reach populations

> > Sep 2018 Apple launches its iWatch series 4 as the first FDA-approved consumer device with the ECG function

May 2019 German Health Minister Jens Spahn publicly announces that patients should benefit from useful mHealth in health care as soon as possible

2019 The global femtech market size was valued at USD 18.75 Billion [2]

2019-2020 The Global market share for Fitness/Wellness self-tracking increases by

> 2020 DiGAs are introduced in Germany as worldwide first Health App on prescriptionscheme, together with a fast track evaluation process for digital health applications

Dec 2020 Researchers publish a study in New England Journal of Medicine demonstrating racial bias in pulse oximetry measurement

 $2021\,\text{Period tracking app Flo shares sensitive}$ health data with Facebook and Google [3]

2020-2023 Pandemic & Corona App 48 Million Downloads in Germany 2022 Al based psycho-therapy,

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2023 DiGA Directory Permanently Accepted: 18 Provisionally Accepted: 29

Future The Global FemTech market expected to grow to \$60B by 2027 [2] and global mHealth market to \$232.3 B in 2028 [4]

2024

01.04.2018 Beginning of META-Project 2018

2018–2019 Study on Apps responding to violence against women and girls

2018-2020 Ethical analysis of informed consent and terms of use in mHealth

2019 Research stay 2019-2020 Critical empirical at the Ethox Centre, University of Oxford

and normative analysis of period-tracking and fertility apps 1 -3 7 2019 International Conference at LMU/TUM: Digital behavioral technologies, vulnerability, and justice

2019–2023 empirical study on open-source mHealth for Type 1 Diabetes

2019 Launch of webpage about-mhealth.net

2019–2024 Qualitative study on physician-patient relationship in diabetology

27.-18.10.2021 Brocher workshop: The Ethics of mHealth as a global phenomenon

> 2020-2023 Qualitative interview study on values, norms and motivations of mHealth developers and start ups with fieldwork in Germany, India and the United States

April 2022 Research stay at the University of California, Berkeley

2020-2023 Quantitative study on experiences and opinions of physicians on mHealth (focus on mental health and diabetology)

> 5.-6.10.2023 Conference: mHealth und Ethik. Im Dialog mit Politik, Praxis und Wissenschaft. Harnack-Haus der Max-Planck-Gesellschaft, Berlin

> > Feb-April 2023 Research stay Rutgers University, USA

2024 Edited Book - mHealth: intersectional ethics for a global society

31.3.2024 End of META-Project

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