

# Timeline

## Evolution of mHealth

## META Researchproject 2018-2024

2007first time Quantified Self movement was mentioned

Early 2010smHealth for chronic care

Early 2010Self-tracking trend starts with Fitness/Wellness apps and devices

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

2015FemTech as emerging subfield of mHealth

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

2016-2018startups like Ada Health are starting to enter the consumer health market in Germany

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

May 2018German Health Minister Jens Spahn publicly announces that patients should benefit from useful mHealth in health care as soon as possible

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

2019-2020The Global market share for Fitness/Wellness self-tracking increases by 48.8%<sup>[1]</sup>

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

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

2021Periodtracking app Flo shares sensitive health data with Facebook and Google<sup>[3]</sup>

2020-2023Pandemic & Corona App 48 Million Downloads in Germany

2022AI based psycho-therapy, e.g. chatbot app

2023DiGA Directory Permanently Accepted: 18 Provisionally Accepted: 29 Deleted: 6

FutureThe Global FemTech market expected to grow to \$60B by 2037and global mHealth market to \$232.3 B in 2038

2018

2019

2020

2021

2022

2023

2024

01.04.2018beginning of META-Project

2018-2019study on Apps responding to violence against women and girls

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

2019Research stay at the Ethox Centre, University of Oxford

2019-2020critical empirical and normative analysis of period-tracking and fertility apps

1.-3.7.2019International Conference at LMU/TUM: Digital behavioral technologies, vulnerability, and justice

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

2019Launch of webpage about-mhealth.net

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

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

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

April 2022Research stay at the University of California, Berkeley

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

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

Feb-April 2023Research stay Rutgers University, USA

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

31.3.2024End of META-Project

[1] <https://www.grandviewresearch.com/industry-analysis/fitness-app-market>

[2] <https://www.emergenresearch.com/industry-report/femtech-market>

[3] <https://www.ftc.gov/news-events/news/press-releases/2021/06/ftc-finalizes-order-flo-health-fertility-tracking-app-shared-sensitive-health-data-facebook-google>

[4] [https://www.globenewswire.com/en/news-release/2023/01/13/2588630/0/en/mHealth-Market-to-Reach-USD-232.3-Billion-by-2038-The-Rising-Integration-of-mHealth-Devices-with-Smart-Phones-and-Wearable.html#:~:text=The%20mHealth%20market%20size%20was,period%20\(2022%2D2028\).](https://www.globenewswire.com/en/news-release/2023/01/13/2588630/0/en/mHealth-Market-to-Reach-USD-232.3-Billion-by-2038-The-Rising-Integration-of-mHealth-Devices-with-Smart-Phones-and-Wearable.html#:~:text=The%20mHealth%20market%20size%20was,period%20(2022%2D2028).)

