In the early 21st century, we have tools that can fundamentally advance our understanding of health in ways that we can barely imagine. Just as imaging and genetics have revolutionized our understanding of health, altered our definition of diseases, revealed our ignorance, and changed therapeutic development, these new digital biomarkers – objective, quantifiable measures of biology or health collected and measured through digital devices – can do the same. Fundamental questions, such as where do asthma attacks occur, when does someone with Parkinson disease have tremor, and how does bipolar disorder affect socialization, can now be assessed in novel ways objectively.

Many of these tools, including portables (e.g., smartphones), wearables, digestibles, and implantables, were introduced earlier this century and usually for purposes other than measuring and improving health. However, the interest and desire to use these tools for health are immense as was demonstrated with Apple’s release of ResearchKit, an open source platform for building smartphone applications for research purposes, in March 2015.

(Excerpt from the Editorial by Ray Dorsey of the first issue of Digital Biomarkers)
Digital biomarkers are defined as objective, quantifiable physiological and behavioral data that are collected and measured by means of digital devices such as portables, wearables, implantables or digestibles. The data collected is typically used to explain, influence and/or predict health-related outcomes. Digital biomarkers also represent an opportunity to capture clinically meaningful, objective data.

Multidisciplinary by design, this innovative open access journal bridges the disciplines of computer science, engineering, bio-medicine, regulatory science and informatics. The editorial board includes leaders from academia, life sciences, technology and government, thus reflecting the broad scope of the journal. Papers are published within 60 days of submission and the inclusion of videos or other visual materials is supported.

Moreover, Digital Biomarkers provides and supports access to data, algorithms and app-repositories linked to the articles published in the journal.

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