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## Editorial

## Reflecting on a future ready for digital health

"Machines take me by surprise with great frequency", wrote digital pioneer Alan Turing 70 years ago. In our first year of publication, the editors of *The Lancet Digital Health* have been surprised not only by the innovative work sent to us every day, but also by an increasingly turbulent global situation, including the COVID-19 pandemic. Can digital technology help to solve human challenges? We believe so. However, the potential benefits of technology for health will remain untapped without an approach rooted in science, culture, and ethics. This approach has guided our journal's goals since its launch: to support robust and reproducible digital health research, and to unite researchers and clinicians from different disciplines, helping them to discover, collaborate, and inspire.

How do we know if we have succeeded? We are often asked about impact factor and citation metrics which take time to establish, but more importantly are not the only, or even the most critical, measure of impact or quality. However, citations have highlighted that the more than 150 Research Articles, Editorials, Correspondences, News, and Comments published in *The Lancet Digital Health* so far have been referenced in not only well known journals such as *Nature, The BMJ, The Lancet, JAMA, NEJM*, and *Science* but also diverse community journals across medical specialities as well as philosophy, physics, and chemistry journals. This wide-reaching impact reflects the broad scope of the journal.

We would like to take this opportunity to thank you, our readers, authors, and reviewers, for your positivity and support. With over 6000 Twitter followers and 16773 people signed up for content alerts, we are extremely grateful to all the clinicians, scientists, engineers, and policy makers who have entrusted their work to us. We thank our more than 450 reviewers who invested considerable time and effort to help strengthen papers for publication. Given the diversity of the field and the success of our Comments, we are now expanding our content to publish Reviews, allowing more opportunity for discussion and debate, covering the most pressing topics in digital health.

As outlined in our first Editorial, research published in the journal aimed to catalyse change in clinical practice. Examples include papers on crowd-sourced COVID-19 data, guidelines for evaluation of health apps and a systematic review and meta-analysis of the current AI medical diagnostic field, which the authors followed by leading the development of SPIRIT-AI and CONSORT-AI extension guidelines. A recent report of real-world data in health care came from The Scripps Research and Translational Institute showing that data from Fitbit wearables may improve the prediction of influenza-like illness. Following this study, Fitbit have announced that they will be sharing their data with research and academic institutes (while upholding privacy regulations) for researchers to use as a tool to help mitigate the spread of COVID-19.

Engagement with the research and clinical communities is integral to our work. We have been given invaluable insights from our diverse international advisory board (IAB) about issues such as the challenges of reproducibility, interdisciplinary research, and the future of digital health (listen to our latest podcast for interviews with some of our IAB members). Although most agreed that greater rigour is needed in the field, we have also noted a more nuanced discussion emerging. There is increasing acknowledgement of the need for partnership between human and digital systems to effect change in healthcare, for example technology to better support overburdened workers in primary care. Board members also highlighted the potential of digital technologies, such as open source software for reporting, analysis, and dissemination of data, to improve the health of those most affected by gaps in healthcare, for example in lowincome and middle-income countries. However, despite continuous efforts in the community, challenges remain. These include a dearth of data quality, standardization, and accessibility; bias in AI tools; abuse of data including examples of civil and human rights violations and privacy breaches; and inadequate regulatory frameworks.

There are still many challenges ahead, but we feel we have made progress towards achieving our intended goals. We continue to encourage robust, rigorous research across disciplines in digital health, and particularly work that shows innovation in overcoming some of the challenges outlined above. We look forward to working with you all in coming years to help advance the fast moving—and constantly surprising—digital era of medicine. The Lancet Digital Health

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To read the **first Editorial by The Lancet Digital Health** see Lancet Digital Health 2019; **1**: e1

To access research on crowdsourced epidemiological data on COVID-19 see Articles Lancet Digital Health 2020; 2: e201–08

To read a **Comment** on guidelines for evaluation of health apps see Lancet Digital Health 2019; 1: e52-54

For the systematic review and meta-analysis of the current AI medical diagnostic research see Article Lancet Digital Health 2019; 1: e279-97

For more on the development of SPIRIT-AI and CONSORT-AI extension guidelines see Correspondence Lancet 2019; 394: 1225

To access **research describing** prediction of influenza-like illness using data from wearables see Articles Lancet Dig Health 2020; **2**: e85-93

To read the **recent announcement by Fitbit** see https://blog.fitbit.com/letter-

from-ceo/

To listen to the latest Lancet Digital Health podcast go to https://www.thelancet.com/ landig/audio