10 Digital Psychiatry Changes to Expect in 2017

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1. More Scientific Evidence

The rate at which clinical research of mental health technologies such as smartphone apps, wearable sensors, and digital devices rose steadily in 2016. It is expected to continue in 2017.¹
Forecast #1

We anticipate larger and more randomized and placebo controlled studies with new methodologies by companies like Agile Science\(^2\) that offer alternatives to traditional study approaches.
2. New Uses for Passive Data

Smartphone apps that track mood and help record psychiatric symptoms are becoming mainstream.

Forecast #2
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In 2017, novel uses from this technology will have wider implications for the use of phone data like GPS to determine one’s location and accelerometers to estimate activity, as well as call or text logs to learn about social patterns. For example, if your phone knows you have not left the house in one week and made fewer phone calls, could that be a signal for recurrence of depression? Questions like this will likely be answered in 2017.
The amount of mental health information gathered through smartphones and sensors continues to grow. In 2016 it was possible to capture more than 1 million data points per day from psychiatric research grade apps.³
Forecast #3

Next year, even more massive data collection is expected. Thus, the field of psychiatry will align with science to analyze “big data” and apply novel methods in response to the information.
Augmented reality and virtual reality have become more affordable and popular in 2016 (think Pokemon Go).
Forecast #4

Impending research will examine how new technologies can be applied towards mental health.

While there is a rich history of augmented and virtual reality treatment of PTSD and anxiety, accessibility of these devices will see a boost in novel uses and targets.⁵
5. Emphasis on Privacy and Psybersecurity

Refinement in collecting personal mental health information from smartphones and sensors has raised concerns about confidentiality and privacy. The US Health and Human Services issued a report on the need for more protections in the mobile health space. The US Government Accountability Organization released alarming numbers about hacking of electronic medical data.
Forecast #5

In 2017 these concerns will continue, but we hope for solutions such as government regulations and technology innovations (eg, block chain\(^8\)) to secure personal data.
In early 2016, the $2 million settlement between the US Government and Lumosity, the brain training app maker, signaled that unsupported claims will no longer be tolerated. In 2017 transparency will be the norm. The days of hiding how digital health innovations work are over.
Forecast #6

Going forward, app makers must demonstrate why their approach is valid and secure. Companies that maintain a closed, or black-box, approach will find it increasingly difficult to compete in 2017.
As the number of mental health apps available on the consumer marketplace continues to rise, both patients and clinicians need to distinguish useful and safe apps from harmful and dangerous ones.
Forecast #7

Determined efforts to evaluate and rate mental health apps with frameworks will be introduced by the American Psychiatric Association and UK’s NHS, among others.
Throughout 2016 it became clear that many of the mental health apps we have today are unappealing. Patients often use them a single time and then never open them again.
Forecast #8

To make usable apps with practical applications, partnerships with patients will be established to design engaging digital tools that best meet their needs.¹¹
There is more to digital psychiatry than smartphone apps and wearables. Research shows that apps and other technologies often work better via a hybrid care model that combines the expertise of mental health professionals and the support needed by patients with available technologies.¹²
Forecast #9

There will be more research on and success in integrating technology directly with clinical experts and their patients.
The economics of digital psychiatry received little attention in 2016, although finding sustainable ways in which these services can support themselves will be a focus of 2017.
Forecast #10

Look for announcements and policy from government, big insurers, and even investors as each tackle this pressing issue.\textsuperscript{13}
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References