

10 keys to mHealth apps that are easier to use

FEB 10, 2020

Tanya Albert Henry

Contributing News Writer

Mobile health (mHealth) apps must be safe as well as easy to use and recently released guidelines advise developers to follow five sound usability principles to accomplish that: learnability, efficiency, memorability, prevention of errors and user satisfaction.

The guidelines were developed by Xcertia, an independent nonprofit that the AMA and other major health and technology organizations founded. When developers comply with the Xcertia mHealth App Guidelines—which include sections that address privacy, content, security, design and operability—it helps provide a level of assurance that an mHealth app delivers value to patients, physicians and other users.

There are well-established standards on usability, but mHealth apps can sometimes still be all over the map on how they tackle this, said Michael Hodgkins, MD, Xcertia chair and AMA senior adviser for digital medicine. When mHealth apps fail to consider how the end user will interact with the app, the user can become frustrated, confused and may even stop using the app because of the difficulties they have using it.

“What do you expect when you use your smartphone? Do you need to take a training class? No. The apps you really do use on a regular basis—do you need to spend hours learning how to use them? No. If you did, you wouldn’t use them. So, the usability of an mHealth app should generally be intuitive. If something is well-designed, you should be able to figure it out quickly,” Dr. Hodgkins said.

To avoid user frustration, mHealth developers need to keep the end user in mind throughout the design process, he said.

Designing with usability in mind

Here is a look at the 10 items that the guidelines outline as items that designers need to consider

when trying to meet the five key principles associated with usability:

Visual design. Apps should promote legibility, clarity of content and user engagement without unnecessary distraction.

Readability. Text should be readable, understandable and adjustable, without altering the screen layout in a way that would confuse users or make it hard to use.

App navigation. Users should be able to go between screens quickly and easily to complete tasks.

Onboarding. Launching, registering, entering personal information and preparing an app for first-time use should be an intuitive process.

Feedback. The app should give users efficient and informative feedback based on their actions within the app.

Notifications, alerts and alarms. These general reminders, nonurgent and urgent indicators need to consider the safety and usability to inform users when attention is required.

Resources and troubleshooting. Apps must incorporate features to guide the user when help is needed.

Historical data. Information should be easy for user to access, read and understand.

Accessibility. Apps should be able to accommodate a wide variety of users, including those with visual, auditory or cognitive impairment, as well as those with learning disabilities and motor impairment.

Ongoing app evaluation. Apps should undergo robust, iterative evaluations that follow a user-centered design process during the entire development lifecycle.

Setting mHealth app standards

Xcertia is not an accrediting body, but app developers can seek Xcertia board approval that they are following the established guidelines and can then use the Xcertia name and logo.



The AMA involvement in Xcertia stems from a 2016 policy recommended in an AMA Council on Medical Service report. The Healthcare Information and Management Systems Society, the American Heart Association and the digital health nonprofit DHX Group co-founded the effort to improve trust in, and the value of, mHealth apps.

Members of the Xcertia board are drawn from Accenture, the App Association, Mayo Clinic, Partners Healthcare, IBM Watson Health, the American Telemedicine Association, the University of Illinois at Chicago, and the IQVIA Institute for Human Data Science.