Digital Accessibility: Utilizing Third-Party Devices or Software

What is digital accessibility and why is it important?

Digital accessibility standards are outlined in the World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG) 2.1, Level AA standards for IT accessibility, which are generally accepted guidelines by institutions. In short, the W3C states "accessibility involves a wide range of disabilities, including visual, auditory, physical, speech, cognitive, language, learning, and neurological disabilities…accessibility guidelines also make web content more usable by older individuals with changing abilities due to aging and often improve usability for users in general."

When procuring third-party devices or software, it is essential to work with vendors whose resources are designed to be accessible for those with disabilities and/or for those who may require the use of assistive technologies. The W3C explains that "accessibility is about ensuring that digital technology is usable by people with disabilities…the fundamental goal of accessibility: meeting the needs of disabled people in the real world. Accessibility is an important aspect of diversity, equity, and inclusion (DEI)." Without such applied standards, digital resources can lack complete accessibility, making the content exclusionary. As institutional standards evolve to meet more stringent accessibility requirements, such as the recently updated Harvard University Policy, it is important for IRBs and researchers to also adhere to such guidelines when vetting third-party devices and software used in research. Consistent and more reliable standards across the community will create a better, more inclusive, experience for all participants and ensure that third-party devices and software are appropriate for research.

Why is digital accessibility Important in human participant research?

The responsible conduct of human participant research depends on upholding the ethical principle of justice. This means ensuring that reasonable, non-exploitative, and well-considered procedures are fairly distributed across potential participants, participants are selected equitably, and the risks/benefits are distributed fairly among those who will both benefit from the research and who will bear its burdens. Incorporating accessible versions of third-party devices or software during a research study can exponentially expand the number of potential participants and generate more meaningful, impactful, and generalizable study outcomes as a result.

As mentioned earlier, institutions such as Harvard University have outlined standards and questions to consider when evaluating a potential vendor for digital accessibility. However, a more overarching standard has not been adopted by the research community. During the COVID-19 pandemic researchers and participants evolved and adapted to conduct remote/hybrid research, utilized online consent modalities, and called upon Decentralized Clinical Trials (DCT). As researchers have observed the benefits of utilizing technology to expand recruitment and participation, as well as to decrease burdens on research participants, the next step is to marshal that same technology to increase accessibility, and thus inclusivity, to apply to the potential field of participants. Below we have compiled a list of possible questions that an investigator or IRB member can use when talking with potential vendors. These

questions should be used to confirm that a third-party software or device meets a baseline accessibility standard and is viable to all potential study participants.

Questions to consider when evaluating a third-party device or software for research:

- Has the product been previously used for human participant research?
- Are there any known limitations for a particular population in terms of their requirements for accessibility to the product and relative to the functionalities of the product?
- Will updates to the product require an accessibility review or other form of review by the IRB?
- Has your product undergone Accessibility Conformance Testing (ACT)?
- Is there a demo version of your product available for researchers to use in the planning phase to test with various potential participant populations for optimal feasibility?
- What types of help options (e.g., written information, chat portals, phone lines) does your company include to support the use of the product? Are those help options accessible?
- Does the increased accessibility of your product create security issues with participant data?
- Will a more accessible version of your product be more expensive or is it included in the standard pricing?
- When research involves a multisite clinical trial, will your company agree to make the product meet all institutions' accessibility standards, even if they are more stringent than the company standards?
- Are translated versions of the product and help options available and equally accessible?
- Can your product meet the same accessibility standards if research is conducted internationally?
- Has the product been reviewed by people with disabilities?

Please submit any suggestions, ask questions, and share this material by contacting us at regulatory@catalyst.harvard.edu.