

## Reaching all of your audience

The Americans with Disabilities Act, or ADA, went into effect in 1992. Its aim is to give “civil rights protections to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services and telecommunications.”

On a practical level, it means that places where businesses interface with the public must meet a set of standards, guaranteeing that those touchpoints don't create hardship for a disabled user. Needless to say, ADA has some big implications for kiosks, and it's important to keep them in mind at the outset of a project.

Adam Aronson, principal for San Francisco-based design firm arc design, said that ADA requirements vary from state to state, so it's important to research the guidelines for the states where you will deploy kiosks.

He also said to keep in mind your project's “dwell time,” or the amount of time the user will be in front of the device.

“A longer average dwell — over 2 minutes — will require an ability for a wheelchair user to position their legs under the interface and approach the kiosk from the front,” he said. “A shorter dwell time

allows the kiosk to be designed for the ‘side approach’ where the wheelchair user positions themselves side-on to the machine.”

Aronson offered this checklist of characteristics, each of which should be optimized to serve patrons in wheelchairs as well as those standing:

- Screen height
- Ticket/printer or other dispenser height
- Screen angle
- Clarity of instructional text (size and contrast)
- Braille or auditory feedback if necessary
- “Ensuring that a kiosk interface complies with the large range of sizes and shapes of people is actually fairly easy,” he said.

“There has been a great deal of research in the field of ergonomics that started back in the second World War, when the Department of Defense was designing equipment to suit the huge range in size of their conscripts. This has been improved upon over the years to the point that you can now easily access data delineating such important factors as arm reach, cone of vision, eye height, etc., for many varying body types, including wheelchair users.”

When it comes to accessibility, the smallest details can end up making the biggest difference. Aronson gives the example of being able to tilt the screen.

“Tilting the screen is a very important factor in allowing

the largest range of different height users to access your kiosk,” he said.

“Kiosks that have vertically oriented screens tend to place greater limits on accessibility and are better suited to digital signage applications.”

Above all, using the right materials is key, said Susan Wishart, spokesperson for enclosure designer and manufacturer MetalFX. “Making sure manufacturing provides the best material and workmanship ensures safety,” she said, “which protects against harm and liability in order to keep the cost effective to the end-user.”

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