

# Designing For Touch-screen Kiosks

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There are aspects to touch-screen technology that make their design fundamentally different to that of desktop applications. This article outlines these differences and provides some pointers to ensure success.

As with other interactive media, touch-screen kiosks are designed for many different types of uses - from art piece installations to bus timetables and just about everything in between. But the practice of design for such kiosks demonstrates the importance of understanding hardware considerations and restraints before embarking on interface development.

There are aspects to touch-screen technology that make their design fundamentally different to that of desktop applications. Most of these differences revolve around the nature of the input or controlling device. Touch screen kiosks are controlled directly by the user's finger whereas desktop applications are controlled remotely by devices like a mouse or keyboard. Users' fingers and hands vary in size and shape unlike a mouse cursor that stays more or less the same size from machine to machine. This is the primary consideration for design.

For the purposes of this article we will concentrate on the touch-screen and the users' interaction with the content of the kiosk. Issues as to the design and usability of the kiosk's hardware or casing (such as height and location) will not be addressed. Before the designer can begin to think what the user might want in terms of content there are more basic concerns:

## Simplicity

More often than not kiosks are placed in 'non computer environments' - places where the majority of users may not be familiar with a computer type interface. The interface should be as non-technical as possible. The language used should be simple, familiar and contextual. In short the interface or technology should not get in the way of the information.

## Feedback

System feedback is essential. Inexperienced users are more likely to think there is something wrong with the system when they encounter a delay. Simple phrases like 'please wait a moment' or 'we are looking for your request' will give these novice users the necessary reassurance.

## Control

All buttons and links need to be considerably larger than they would ordinarily be for mouse-based applications. Likewise the distance between buttons must be greater so as to accommodate the larger fingers - otherwise clumsy fingers are likely to 'push all the wrong buttons'.

'Rollovers' and other similar elements are not really useful as a means of denoting interactive elements as they are usually going to be obscured by the finger or hand. If rollovers are to be used, they should change only when the finger is lifted. Instead, buttons should be clearly labelled and visually consistent throughout the application.

## Navigation

Navigation, or rather groups of main navigation items, should be placed along the bottom rather than the top of the screen. If the main navigation sits along the top, the user's hand and arm will obscure content as it changes. The alternative solution, placing navigation along the sides of the screen, is likely to cause similar problems depending on whether the person is left or right handed.

## Accessibility

It is important to remember that users with disabilities may use the touch-screen kiosk at some stage. Many considerations have to be kept in mind in this regard such as the sensitivity of the touch-screen (important for those with arthritis or motor impairments), auditory feedback and size of fonts or colours used (important for those with visual impairments).

The information the user might want to gain from the interactive kiosk is entirely dependent on the subject matter involved. Invariably, this is a compromise between what the user wants and what the provider might want to give. How users access and find that information is the task of the designer. As with all interactive applications, the system should be thoroughly tested with representative users both iteratively throughout the design process and subsequent to its release.

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