

Public access terminals – Accessibility

Source: <http://universaldesign.ie>

1.1 Ensure that all operable parts are reachable by people of all heights and people sitting in a wheelchair or buggy

The operable parts include such things as buttons and keypads, input slots for cards or money and dispensers for tickets, receipts or returned money. Users should be able to access all of these from whatever position and orientation they find themselves in naturally when using the terminal. Preferably, this should be a single position which does not require the person to reorientate themselves during operation.

1.2 Ensure that displays are within sight of people of all heights and people sitting in a wheelchair or buggy

Being "within sight" means that the user's line of sight to the display is unobstructed at a distance and angle that enables the display to be read clearly by someone with 20:20 vision, within the environmental constraints such as ambient lighting (allowing for users with restricted vision is covered in other checkpoints).

1.3 Ensure that controls are adequately sized and sufficiently spaced to be operated by people with limited dexterity

The user should be able to operate any control, such as a button, key or knob, without accidentally operating any other control at the same time. This means that each control should be sufficiently large for the user to target and activate it, even if they suffer from limited dexterity through lack of motor control or shaking hands. Precise activation should be possible even with shaking hands.

1.4 Ensure that operation requires minimal strength, grip and wrist twisting

1.5 Ensure that the terminal can be operated using only one hand

1.6 If using a touchscreen or contact-sensitive controls, do not require that it is touched by a body part

1.7 Ensure that users with restricted or no vision can use all functions of the terminal

Users will normally access the functions of the terminal through controls such as buttons, keys and knobs. These may or may not be visible to users who are blind, partially sighted or colour blind. However, all users with restricted vision must still be able to use all the functions. Where possible, the controls should be designed so that at least users who have partial vision or colour blindness are able to perceive them, understand what each is for and know how to operate them. It may also be possible

to design in such a way that users who are completely blind can still perceive, distinguish and operate the same controls. If this is not possible or extremely difficult, an alternative control method should be made available which these users can perceive and which can be used to access the full functionality.

1.8 Ensure that all outputs can be perceived by users with restricted or no vision

Users who are blind, partially sighted or colour blind should be able to perceive all of the outputs from the terminal. The outputs include any information that is presented and any physical items that are delivered, such as tickets, cash, receipts and returned cards.

Where possible, visually displayed information should be delivered in a form that users who have partial vision or colour blindness can see. Where this is not possible, or for users who are completely blind, an alternative form that they can perceive should be made available and it should provide the same information.

1.9 Ensure that all outputs can be perceived by users with restricted or no hearing

Users who are deaf or hard of hearing should be able to perceive all of the outputs from the terminal. The outputs include any information that is presented and any physical items that are delivered, such as tickets, cash, receipts and returned cards.

Where possible, audible information should be delivered in a form that users who are hard of hearing can hear. Where this is not possible, or for users who are profoundly deaf, an alternative form that they can perceive should be made available and it should provide the same information.

1.10 Use the simplest language possible for instructions, prompts and outputs and, where possible, supplement it with pictorial information or spoken language

The language that is used for things like operating instructions, button labels and displayed information should be clear, unambiguous and easily digested. It should not contain unnecessary jargon, colloquialisms, idiomatic expressions or convoluted grammar. Where possible, use explanatory icons, pictures or diagrams to aid understanding and provide for written text to be spoken for the benefit of users who have difficulty reading.

1.11 If using cards, ensure that the card can be inserted into the card reader in its correct orientation without requiring vision

1.12 If using biometric identification, provide an alternative access security mechanism for users who do not possess the required biological characteristic

1.13 Do not cause the screen to flash at a frequency of above 2Hz

Avoid all flickering or flashing with a frequency of more than twice per second. This includes flashing backgrounds or text, repeatedly turning graphics on and off or cycling between different images.

1.14 When installing the terminal, ensure that users can get to it along an unobstructed path and operate it from a stable position

The path to the terminal must be free from obstacles such as steps, bins or signage that would obstruct the progress of users who are either walking or using a mobility aid such as a wheelchair or motorised buggy.

1.15 Ensure that an equivalent service is available through an accessible channel for users who cannot use the terminal

2.1 Allow sufficient time to accommodate the slowest users

Operations such as entering a PIN, choosing from a list of options or typing in information, should not be cancelled or interrupted by system prompts until even the slowest users have had sufficient time to complete the operation. This includes reminders and timeouts.

2.2 Provide a way for the user to cancel the whole transaction at any point and retrieve any items they have inserted

The user should be able to abandon any incomplete or unconfirmed requests at any time during a transaction. This should result in all inputs, such as money and cards) being returned and no further outputs being generated. The terminal should then return to the starting point of the transaction.

2.3 Ensure that the user interface and task flow is similar across different functions and remains the same across repeated visits

A uniform presentation and interaction style should be used for all functions of the terminal. This should not change between visits.

The steps required to complete a task should also remain the same between visits. This includes the instructions, the choices provided, what inputs are required and

how these are made. Having completed one task, the user should be able to complete a second task by carrying out a similar sequence of steps. Having carried out a task once, the user should be able to return to the terminal at some later time and repeat the task by carrying out the same steps.

2.4 When deploying more than one version of a terminal, ensure that the user interfaces are similar

If a service is delivered through a number of different terminals, they should use a similar presentation and interaction style. The layout of controls and keypads and the location and orientation of slots or dispensers for cards, money, tickets or receipts should be the same on each version of the terminal. Having completed a task on one terminal, the user should be able to complete the same task on a different terminal by carrying out a similar sequence of steps.

2.5 Do not require users to remember a fixed supplied PIN

2.6 Provide for users with multiple impairments

Users with multiple impairments, such as those who are both visually and hearing impaired, should still be able to use the terminal. Features that are provided to accommodate users with different impairments should therefore be supplementary rather than mutually exclusive. That is, using one should not prevent the user from using others. If possible, visually impaired users should be provided with facilities that do not require good hearing. And hearing impaired users should be provided with facilities that do not require good vision or reading ability.

2.7 Provide training or assistance for new users

Some users will find the terminal difficult to use at first, but will be perfectly able to use it after some initial training or assistance. This may be true for users with any perceptual, cognitive or learning impairment. It may also be true for older users who use public access terminals rarely and find them intimidating, simply because they are not familiar with them. However, many terminals are used in a place where support and help is not readily available or convenient. For example, if someone is using a bank cash dispenser for the first time, asking for assistance from other members of the public may compromise their security.

2.8 Ensure privacy and security during use

Terminals should be designed in a way that reduces the chance of sensitive personal information being perceived by other people in the vicinity.