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Interactive TV (iTV) – definition and popularity

Interactive TV (iTV) refers to any digital content that can be navigated through a TV.

In 2010, approximately 24 million TV homes in the UK had access to digital TV, with only 2.1 million having access to analogue TV. Alongside the growth in digital TV ownership, the data suggests that TV viewers are also interacting with their TV to get additional content. Over 80% of the UK's digital viewers have pressed the BBC's red button and over 9 million interacted with the Olympics 2004 coverage. This growth in interactive TV (iTV) makes it important that we consider any relevant usability with interactive TV (iTV).

Although most interactive TV (iTV) services are relatively basic at the moment, most analysts and manufacturers agree that their complexity – and the demand for them - is set to grow substantially. This makes it all the more important that we begin to seriously consider the usability of interactive TV (iTV) services.

Audience habits - impacting interactive TV (iTV) usability

Usability experts generally accept that TV and Web audiences (currently) differ in their attitudes towards each medium. Appreciating the differences between these distinct mindsets is crucial when discussing the usability of interactive TV (iTV) applications:

Active usage - using the Web

On the Web, users are in a “lean-forward” mode. This is an active state of mind, where users are aware that they will need to interact with the medium in order to progress with their experience/task.

Passive consumption – watching TV

Most TV viewers are in a “lean-back” mode. Viewers are accustomed to adopting a passive state of mind in which they do not need interact with their TV (or only interact on a very limited basis, such as changing the channel) in order to progress their experience.

Audiences' expectations can, of course, change over time. It is a fundamental role of the usability analyst to remain aware of – and react to - changing audience expectations. However, it is important to realise that the current interactive TV (iTV) audience is in the “passive consumption” mindset. This will have a significant impact on the usability of any interactive TV (iTV) application. Possible resulting usability considerations may include:

Friendly introduction

Viewers may not be familiar with interactive TV (iTV) applications. Therefore, it would be likely to aid their usability if such applications are introduced in a non-intrusive and non-intimidating way.

Simple choices

Interactive TV (iTV) services (and the audience's familiarity with them) are still at an early stage. As such, it makes good usability sense for any such services to focus on simple and limited options, in

order to make for an easier experience.

Clear design

In addition to limiting interactive TV (iTV) applications to simple choices (see above), it is also important that these choices are communicated as clearly as possible. This means that particular usability effort such be expended on interactive TV (iTV) applications.

At the moment, our usability recommendation would be for interactive TV (iTV) services to have simple functionality and design. If future audiences become more familiar with interactive TV (iTV) services, then increased complexity may become possible.

Display issues “ influencing interactive TV (iTV) usability

Interactive TV (iTV) screens work in a different way to computer monitors. When designing interactive TV (iTV) applications, it is important that these usability issues are considered:

“Text safe area”™

Interactive TV (iTV) services should be designed for the screen’s central “text safe area”™ of (720 x 576). [1] Designing to this area will help to support the usability of an interactive TV (iTV) application by ensuring that its content is correctly displayed (and minimising the chances of distortion or cut-off) on a wide range of interactive TVs.

Rectangular pixels

Any computer-created images that are used in an interactive TV (iTV) application should be saved at 768 x 576 and then reduced to 720 pixels. This will compensate for the difference between the computer monitor’s and interactive TV’s pixels (square vs. slightly rectangular).

Font

The UK Digital Television Group has adopted Tiresias Screenfont as the preferred font for interactive TV (iTV). Using this font will aid an interactive TV (iTV) application’s usability by making text characters easier to distinguish from each other.

• Background

Our studies indicate that interactive TV (iTV) applications should avoid brilliant white backgrounds because they have been shown to cause eyestrain. For usability purposes, we would recommend considering the use of a gentler light background with dark text, or a dark background with light text (as long as there is a high contrast).

Display issues are central to the usability of interactive TV (iTV) applications because they help to make sure that an unnecessary barrier-to-entry is removed. The field of interactive TV (iTV) usability is still developing, but such display issues can be addressed relatively simply.

Navigation “ for interactive TV (iTV) usability

Most interactive TV (iTV) audiences currently use a remote control as their main input device. Whilst this may (and probably will) change over time, it is safe to assume that there is still some value in examining the usability issues associated with such remote control-based interactions:

• Colour keys

Most remote controls have colour keys (for example: red, green, yellow and blue). Our usability studies show that these are best used to represent top-level navigation choices within an interactive

TV (iTV) application, such as: Home, Exit, Index and Back. The BBC recommends that for usability purposes, colour keys should have the same label and function throughout an interactive TV (iTV) application.

• Arrow and OK buttons

Our usability studies suggest these are best used to navigate through any options within an interactive TV (iTV) application. For example, if the colour keys are used to navigate an interactive TV (iTV) application's main options (see above), the Arrow and OK keys can be used for up/down and left/right navigation within the application.

Remote control-based navigation remains the dominant norm within interactive TV (iTV) services. As new interactive TVs " and new interactive TV (iTV) applications " are developed, this may change. However, for the moment we think that the recommendations mentioned above will aid good usability for most interactive TV (iTV) applications.

Usability testing is essential for interactive TV (iTV) usability

We would recommend usability testing for almost any interactive TV (iTV) project. This is because our knowledge of interactive TV (iTV) application design " and interactive TV (iTV) usability " is still developing. In addition, the audience's knowledge and experience of interactive TV (iTV) services is also growing - and usability testing sessions with interactive TV (iTV) services will help us to gauge these changes.

Within these uncertain conditions, usability testing is very likely to help significantly reduce the risk " and increase the usability - of interactive TV (iTV) application development.

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