



Infocube 3D Navigation and Interaction

Here are some key issues around this new approach to information interaction and navigation, together with the more obvious benefits of a 3D experience. Since coming up with the idea of a 3D cube to navigate information-rich environments, Infocube have discovered a variety of user benefits. There are some of them:-

Ease of Use

We have found a minimum of learning time is required for people to become comfortable with the 3D navigation, sometimes just a few minutes. Nor are there any obvious age barriers with people as young as 8 and as old as 80+ being able to use the Cube without difficulty.

It seems every range of skill and ability within normal limits can use the intuitive 3D experience. The software provides a very inclusive platform. Because a variety of techniques can be used for navigation including mouse, keyboard, and arrow keys it is also an accessible platform.

Speeding up access to information

Several factors contribute to the rapidity of access to information, and they include:

- The fact a cube can be rotated to see all sides
- The fact that multiple hot spots (the points on a cube face that are clicked to pop out another cube, or information page) can be built into the faces of a cube
- The fact that hot spots on a single cube can provide access to a wide range of information types including Web pages, Word documents, Excel spreadsheets, databases, and can even make programme calls

Making information more intuitively usable

Firstly, the human eye works naturally in a 3D environment, and the mind and eye are more comfortable working in this environment than a 2D environment.

Then there is the fact information areas are opened, and then closed again when the cube is popped back. This means there are not many windows often left open on the desk-top, and navigation is obvious, making it less likely for users to become 'lost' in an application or on a Web site. We think this is the only effective way to manage content on small-footprint devices like mobile phones.

We think this ease of interaction is an important factor for the business market, particularly managers in large or medium companies, who often have issues around the time it takes to find information that is already in their systems. Make information easier to access and people will be more inclined to use it, so having a direct impact on the amount and quality of information used to support business decisions.

Bringing Information to Life

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Application independence

While a Cube is a natural way of making use of information rich environments over ADSL, the Internet and fast access to it are not the only environments where a Cube can be an asset. 3D navigation of information can be useful to navigate the following:

- CD ROMs
- Intranets
- Web sites
- Software packages
- Kiosks

Platform independence

The Cube is a natural interface for a wide variety of devices, from the small screen Mobile Phone and PDA, up to large and multi-screen experiences. This multi-platform capability was a design goal - what the interface was designed for - and it has already proven to be a ubiquitous interface, able to work well on:

- PCs
- Tablet Computers
- Plasma Screens
- PDA's
- Mobile phones
- Digital Televisions

Customisation

Cubes can be designed to suit individual circumstances, and where necessary, several can be used concurrently. So for example, a simple 2 x 2 cube may be useful in some circumstances, the Software Developers Tool kit allows users to populate a simple 3 x 3 x 3 cube with information or programme calls of their choosing, and multiple cubes can also be used - for example a 3 x 3 x 3 cube in conjunction with a 2 x 2 cube. The power is available to select the most appropriate navigation for any individual application.

Differentiation

For some time to come, applications making use of a Cube for navigation will by nature of the innovation, be differentiated in their particular market, thus grabbing more 'mind time' than alternatives. In a world where disposable time is at a premium we think this will be major contributor to achieving higher 'take-up' for applications making use of a Cube.

I hope this summary is helpful, but the best way to appreciate the solution is to see it in action, and possible applications for the Mobile Phone are described here.

Get Ready for 3G Mobile Services in 3D!

Operator investment in Third Generation Networks and services is considerable. Some Operators may be tempted to wait before thinking too much about services. An alternative says early planning and preparations will enhance quality of services and reduce costs of deployment. We think this makes sense, especially for content services. Time and effort invested now in developing products and services will be repaid many times over.

The "Ease of Use" Challenge

A particular challenge to be addressed early with 3G is ease of use. With Mobile Phones acquiring greater functionality, usability becomes key to determining take-up of new services. Operators have already found ease of use is significant in market position and user satisfaction. Yet existing phone interfaces have reaching their limits of usability to access the ranges of services that can now be supported.

A Better way with 3D Interfaces

To overcome the limitations of Windowing menus or Grid frameworks Infocube invented the 3D interface for Mobile Devices. This transforms the small display into an active and interactive fun experience. In 3D it is possible to display an order of magnitude greater range of options, all without losing the direct intuitive experience. The 3D Interface is ideal for 3G Services.

Practical Implications

3D makes use of a small number of core controls. If design considerations in wanting to look different eliminate current standards then Operators could position handset as obsolete before they even appear. Early awareness of 3D for handset planning, of both physical design and operating systems, is essential if Operators are not to miss a major opportunity for handset upgrades and enhanced user satisfaction.

Support, Training and Operations Implications.

With the ease of use of 3D brings Operators can substantially reduce Churn, support calls and the need for user training. There can be substantial savings on operational support levels. With Cube interfaces soon available in all major software languages, Mobile Operators have real options for deploying significantly better user experiences.

Getting Started

Infocube have taken 5 years to realise a 3D interface on the mobile phone and Operators will want to undertake their own testing on acceptability and power of this new experience. To make this easy Infocube provide a "Starter Pack" with minimum obstacles for an Operator to test the power of 3D. With a combination of Software Demonstration Licenses and Professional Services from Infocube the Operator gets up to speed in a matter of months, and can base 3G deployment on solid foundations with world class user interface experiences.

To discuss your requirements please contact Gordon Ross on 44 (0) 1923 779975

Or e-mail gordon@infocube.net

And make sure you are positioned to maximise ARPU from a new generation of more intuitive mobile experiences.

INFOCUBE

- Infocube is how the Smartphone and the Internet should have worked from the start, and how they will work in the future. Infocube is a device, network and platform independent information process and interface to satisfies an individual's daily information needs in 20 minutes a day or less, every day in a predictable, effective and enjoyable manner. Infocube brings together content, computers and communications into an integrated experience, easily navigated
- Infocube eliminates complexity, delays and frustrating searches, and replaces them with an intuitive, simple and powerful information space. Its robust design provides for personalisation, and supports communications, community and commerce applications. It adds security to interaction, whilst preserving privacy, paving the way for a new generation of converged experiences, including paid-for content and interaction services.
- Infocube sits at the intersection of content, content aggregation, all forms of computing device including servers, computers, digital assistants, televisions, and mobile phones, and fixed and wireless network infrastructures. Using IP as a transport mechanism, Infocube delivers information anywhere, any time, to any device. It is an ideal interface for the coming generation of always-on interfaces for DSL, 3G and other technology devices and network innovations.
- Going beyond today's pervasive computing, where information is duplicated and re-purposed for a variety of services and devices, Infocube delivers a more integrated, seamless and co-ordinated experience of ubiquitous computing and content. Infocube is a building block in the world of convergence. It places power close to the user where it is needed, combining it with an intuitive universal user interface.
- Part of an open-software framework, Infocube assists ISP's, Telco's, Hardware and Software Vendors and Content providers and aggregators by providing a set of standards-based components for content generation, delivery and interaction. Infocube eliminates the need for expensive middle-ware accelerators and caches, simplifies delivery protocols, and places the power for existing and new applications in the network, in an open and value for money fashion.
- Infocube is more than just applications software. It is packaging for information generation and acquisition, communications, community and commerce, wrapped in an easy to use shell. Helping avoid information overload, Infocube is designed to make the electronic world a more interesting, useful, productive and rewarding place, for users, vendors and service and solution providers alike. Able to reduce customer churn and enhance revenue, Infocube is the ideal Broadband interface
- All-in-all Infocube is the way the Internet would have worked if it had been designed with the user in mind. Infocube sits alongside existing Internet, Intranet and Extranet applications to deliver a more useful, more efficient and more fun experience for information transactions. Open software frameworks and universal user interfaces ensures Infocube is a low cost, high value component in any ubiquitous computing platform.

*Whatever Your Business, Infocube can help
By Bringing Information to Life*

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