

E-commerce Usability

Tools and techniques to perfect
the on-line experience

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Preface

We are all familiar with airport bookstall best sellers that promise fame, fortune and success in relationships. Many of them – at least the ones I have skimmed whilst waiting for one of the world’s favourite airlines – are deeply disappointing. Not because they do not work (to be honest I have not really been able to try them out fully) but because they tend to miss out on the tricky bit in the process. For example, a book on how to become really rich will often contain such helpful nuggets as ‘make lots of money’. If you then turn to the *How to Make Lots of Money* book, the advice is to start a successful business. The *How to Start a Successful Business* book then suggests that the key is to come up with a simple idea that everyone wants. The *How to Come up with Clever Ideas* book typically talks about brainstorming and all manner of ‘creative ideas’.

Where they fail is that the ideas themselves are often fairly simple to generate; it’s turning them into real solutions that involves a lot of hard work.

One of the widely quoted examples of the ‘ah-ha’ principle at work concerns Kekulé von Stradonitz in 1865 who was struggling to interpret his data on the structure of benzene. Allegedly, after a particularly gruelling day in the laboratory, he fell asleep and dreamed of a group of six snakes. At some point, these dancing snakes each caught another’s tail in its mouth, in such a way that they formed a six-snake ring. When Kekulé awoke, he had stumbled on the resonating ring structure, which made sense of all his work. Now I doubt Kekulé was the first to dream of snakes (indeed I believe they are a rather well-known Freudian symbol) but he was the first one to make the link. The idea on its own meant little, but combined with serious groundwork, provided the apparently trivial spark which made sense of it all.

Clever ideas in computing abound, especially on the web. It is converting them into a sound business model which is more difficult and usually causes most would-be ‘Bill Gates’ to fall by the wayside. E-commerce is an area where bright ideas are common but sound business models are not.

One of the areas where I would claim some expertise (on the basis that I have been working in the area for some big names for many years) is the ergonomics and psychology of retailing. I am always both amused and astounded by the way many e-commerce sites seem to understand customer

psychology and then either ignore it or do the opposite. Real stores design their layouts in such a way that customers are enticed and led through product offerings. High visibility locations (for example, at the ends of aisles) are used carefully to promote particular products and the store entrance is prize territory. Many stores have lots of doors – often automatic. These are not to allow customers out in the event of a fire, but to make it easy for them to enter. Staff are trained to welcome customers, maintain eye contact and generally make them feel welcome.

Yet if we are to believe many e-commerce sites, customers should be challenged at the door to give their address before guessing where merchandise is hidden. Slow response, unhelpful graphics, hidden functionality and unreliable links test the customer's stamina to the limit – before they have even purchased anything. Feedback is often incomplete or even missing.

If it were a real store, customers would walk next door or even travel further afield. On a web site this takes no more than a click or two.

So if usability is so obviously important in e-commerce, why is it not taken more seriously? I would argue that there are three main reasons:

- many people believe that since the web is new, we need to start again learning how to make it usable;
- others argue that the web is unique so nothing that we knew about conventional usability applies.

But probably the most significant reason is that:

- it is difficult to know exactly what to do to ensure good usability.

There are lots of 'gurus' with helpful advice like 'do what I say' who are great at publicising usability but who are not so good at passing on their skills to regular web site designers.

Putting usability knowledge and skills in the public domain is one of the prime motivations of our work in the International Organisation for Standardisation (ISO) Ergonomics of Human System Interaction Committee. Since 1983 we have developed a number of standards aimed at improving the usability of computer hardware and software. The multipart ISO 9241 is one of the better known standards and contains one part (Part 11) specifically devoted to 'Guidance on Usability'. Our experience in developing these standards made us realise that in the computer industry we would always be 'playing catch-up' trying to keep up with the fast pace of hardware and software development.

In the mid-1990s we therefore decided to develop a process standard which would be technology-independent and which would represent international consensus on best practice. In 1999, ISO 13407 'Human Centred Design Processes for Interactive Systems' was published with the explicit aim of providing project managers with a means of ensuring that their design processes have a high likelihood of developing usable systems.

In a sense, it is like the airport best sellers I was criticising earlier. If the process is followed completely, then the designer is assured of a usable product. Of course, there is a catch. Success is only guaranteed if appropriate criteria are identified initially and if the process iterates until they are achieved. It may not be possible to complete the process if the original design objective is unachievable. Designers may not be able to solve some of the problems which testing with real users provides. But the key point is that the standard provides an internationally agreed framework for the usability process.

Since its publication in 2000, it has been well received in Japan (where it is seen as relevant to the design of a wide range of products and systems). In the USA it was one of the key stimuli (along with ISO 9241-11: Guidance on Usability) for the development of the ANSI/NCITS Common Industry Format for reporting usability results. In the UK, it has been promoted as a method for helping public sector systems achieve the Government's objective of effectiveness of IT systems.

In *System Concepts*, we use this framework to inform all our usability work from mobile telephones to government information systems, from computer printers to interactive television and, of course, to web sites.

David Travis has drawn together our experiences with this process in an informative and compelling style. In this book, he has tailored the customer-centred design process to the difficult, but not impossible problem, of making e-commerce sites that people can and do use successfully. Standards – particularly international standards – are written in a peculiar form of English, which often sounds stilted. One of David's great strengths is that he has written a book which is not only a highly *effective* and an *efficient* way of communicating about e-commerce usability, he has also made it *satisfying*, sometimes even fun, to read. In other words, it is a very usable book about usability. The book is rich in informative examples and even the laziest reader should find inspiration from the practical experiences which fill each page.

I was delighted when David asked me to write this preface and I am pleased to commend this book wholeheartedly. I am sure that designers too will find it an invaluable resource and I look forward to the improvement in usable web sites that should result.

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