



## *Preference for privacy...*

We are all drowning in a sea of information. So letting our systems know our preferences seems like a smart idea. But is it safe, asks BT Exact's director for research and venturing Mike Carr.

According to research carried out at School of Information Management and Systems at the University of California at Berkeley, the world produces between 1 and 2 exabytes (1018) of unique information per year. (That's roughly 250 megabytes for every man, woman, and child on earth.) Printed documents of all kinds make up only 0.003% of that total, which means there's a lot of digital information around. You may well feel that a great deal of it is being pushed your way!

So how do you manage it? Well, you could let someone else do it for you, for starters. For example, BT Exact has built a suite of content filters that enable BT Openworld's services at their web portal. The filters are used to boil down over 18,000 items of content each day from over 40 different content providers {that range from the largest, international news-gathering organisations and broadcasters, to smaller, independent content producers.}

### **New breed**

Or if you'd rather watch your news on TV, one way of managing your television viewing is to use a personal video recorder (PVR), one of a new breed of digital home devices. Like a normal VCR, these machines have a TV tuner or can plug into a set-top box; unlike VCRs, they record everything onto an internal hard disk. This is extremely flexible - you can pause live TV, watch the beginning of a programme before you've finished recording it, and effectively reschedule entire evenings of viewing.

The box - as with digital set-top boxes in general - is hooked up to your telephone line at all times. So, every time you choose to watch a programme, that information is logged. Over time, the PVR gets to know your preferences and automatically saves your favourite programmes when they come on and suggests other similar material you might like to watch. You are, in effect, guaranteed a range of material that you really want to watch, when you want to watch it, with very little effort. Fans of the new technology say the change is as radical as the move from black and white to colour sets.

### **Perceived lack of control**

This all sounds great, but recently a well-known broadcasting organisation decided to use the system to push a programme to subscribers as part of a trial to see how television

programmes could be marketed in the digital age. It seemed like a perfectly logical step. Nobody would be forced to watch the programme. The recording was kept on a part of the hard disk that would otherwise be unused - it's set aside for recording short promotions from a special channel when the box isn't otherwise busy. If the box was being used - recording a programme on another channel or being used to watch something - then it would carry on doing whatever it was doing, or at the worst ask the viewer whether it was OK to change channel.

However, viewers' reactions to the move weren't so sanguine. Subscribers were furious and the press caught wind of the story. Some of the coverage focused on the programme and its suitability but most of it focused on subscribers' perceived lack of control. Is this the beginning of spam TV, people asked? And where will it all stop? Sentiments expressed included "this technology might give you the impression that you're in control but it comes at a price. You're being watched..."

### New threat

This reaction is understandable. The Center for Digital Democracy, a US-based campaign group, said in a report last year: "The model that some companies are following combines the worst aspects of the internet and mass media, as the new systems are designed to track not only every activity of users as they surf the net, but also the programmes and commercials they watch. We believe that interactive TV (iTV) data-collection practices represent a new threat to personal privacy."

However, it also demonstrates the benefits of taking time to understand your customers' perception of any new technology and their concerns about privacy. BT Exact's security experts have been working with University College, London (UCL), in the forefront of research on computer-human interaction, on these very issues. Their research has shown that, even if people claim to understand a specific technology, they will often overreact, rejecting the whole concept if they don't realise all the implications of its use from the very beginning. This over-reaction can set back the efforts of the proponents of a system, not just for the individual, but for a wider audience.

### Introducing innovation

One way around this is to consider privacy issues during the system design by carrying out what we call a Privacy Impact Assessment (PIA) at an early stage of the process, preferably at the requirements capture stage. Innovative trialling of new methodologies that balance the technical and the human aspects, has been under way for many years, predominantly in Scandinavian countries. Future technologies, such as biometric-enabled systems, will have a much higher likelihood of success if they take into account people's concerns.

All too often, however, the technology and its demands drive the design and the design methodology. And the whole business of introducing innovation is often an object lesson in managing people's expectations. In the case of the PVRs, if the customers had known that their box could record things by itself, that it would do so at some time in the future and that the information they were gathering might be used for marketing purposes, they could have factored this into their buying decision. In short, however marvellous your technology might be, it still has to do things people want – and expect.

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