

From privacy to transparency

The book, Karen explains, is about drawing people's attention to the fact that, as we live in an information society, we have to get used to the fact that everything in the offline world is moving into the online world. 'Everything that we do in our real life today is being digitally stored somewhere,' she says. The book will also focus on how perceptions of privacy are changing and how they will evolve further in the future. She notes how keen parents are to monitor their children and how this will affect the children's perception of privacy as they grow up.

At the moment the security industry is focused on keeping people out of data as much as possible, this is something that Karen feels will change.

'Today we have privacy enhancing technology, but in the future we will be looking at transparency. It will be "you show me what you have and I'll show you what I have", that kind of thing.'

This book embraces web 2.0 as the future and maybe web 3.0 will bring us a few surprises. It starts by questioning each one of us and how we are sharing our personal information not just online but also offline.

Endemic surveillance

Karen feels that surveillance is now endemic in our society with things such as CCTV in nurseries that parents can view over the internet, the ability to track children by following their mobile phones, and the fact that some schools now hold biometric details of children and even to tag children using some form of RFID tags and GPS.

'The privacy implications are profound,' she says. 'Information about us that we have shared or is collected on us, that we are aware of or not, could end up anywhere in the world and proliferate exponentially in our lifetime, this is what this book is about. Added to this is the nature of privacy in a changing world and the implications for our children and grandchildren in what we make to be tomorrow's world.'

'It's about bringing awareness to people of the information society that we are a part of it whether we choose to be or not. It's not that things are bad, people often see things as being bad when they don't understand them, it's natural. People we don't understand, we think are bad because they dress in a different way.'

'We have a society today that is becoming fragmented, where our families live far apart and it's a disperse society – we've lost the family unit. Now this information society is a way to bring this together again. Granny can have a webcam on her

Karen Lawrence Öqvist is the author of the forthcoming BCS book, *Virtual Shadows: Your Privacy in the Information Society*, which is due out in December. Henry Tucker spoke to her about the book, online security for children and the future of privacy.



computer and be a part of her grandchildren's life again. It's also to do with privacy and how everything, such as the way the real world maps to the virtual world. Also how even if we don't go online, the internet it is still a part of our lives because we have a digital shadow



and there's a lot of stuff in our digital shadow that we have no control over.'

Karen started writing the book when she was doing her masters in information security at Royal Holloway University. The title of her paper was 'protecting children's activities on the internet'. From here she discovered a new online world, one that she wasn't really aware of despite the fact that she had over 15 years experience in IT. She then discussed with her colleagues, who also had children, about the perceptions of online communications and relationships. It was quite clear that, although many were IT experts, they had absolutely no idea of what the internet was like and how children were using it.

'None of us had taken a step back and taken a breath of air to see where this information highway that we had helped build over the last 20 years is going. What is really incredible is that our children are taking the journey for us,' she said.

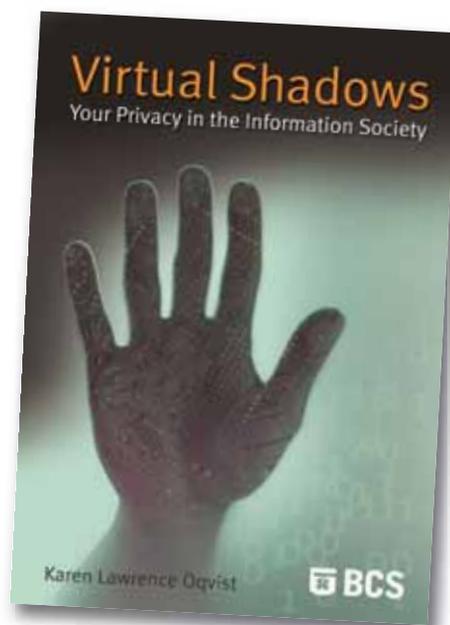
At first Karen's research focused on protecting children. This she felt was necessary because the online world that the children were using was designed by adults for adults. What she found out though was that the internet was changing the way that people communicate and also the ways in which businesses operate. Karen felt that everything was impacted by this and after she had spent a year writing a book that was negative she told her publisher at the BCS she couldn't publish it because she had changed her mind. She then spent the past year rewriting the whole book taking the more positive tack of 'wow, look where we are now!'

The fact is that whether someone likes it or not they are part of this journey, everyone is part of the digital age now. Added to this Karen is thinking more positively about the internet and children's safety.

'That's the message I wanted to get across,' she says. 'When I give a presentation about privacy it's more about a celebration of the fun things you can do online. I want people to feel excited by this, I don't want it to be a scary book. I want it to be a book that just brings awareness because there are too many people out there saying "don't put your children online there are paedophiles there." The book has a whole section on paedophiles and there's a whole section on child safety. The objective isn't to scare people, it's just to educate people and

make them aware.

'I wanted to give some tips on things. I didn't want it to be "oh god we don't have any control over the internet." Instead we are saying don't you know you're sharing your information with the government. 'But according to the Data Protection Act transparency means that you have a right to see what they are storing on you, so there is a part about how you can take more control of your identity.'



World of Warcraft

The book aims to cover all possible areas of the internet that may have an effect on children including the new threats of games such as World of Warcraft and Second Life.

'In the old days the danger was from being approached by strangers on the street but now threats come from the internet. I think what's worse today is that parents think that their kids are safe, but right now it's not the case. In the online gaming world I actually have some stuff in there that says, for example, that parents don't get it.'

'If a child's parents pay for them to have a subscription to World of Warcraft for example – say they have a young teenage boy, and he's part of a virtual world – normally they get quite immersed in them, they want to get new magic powers, they want to get potions and weapons. Someone can befriend them and then help them out with this by giving it to them for something in return. This could be a picture with no clothes on or something more than that. These things can then lead on to sexual abuse in the

real world. This is a gradual progression and part of the grooming process.

'In virtual gaming it's much easier because the child wants it so badly that he will do whatever he needs to progress to the next level or whatever it is. It will start off small but then get more

are linking in with people and they are posting things online, they are making a lot of their private stuff public.

'When all this started happening people didn't really get what it meant for the long term. For example recruitment agencies Google people as part of the

Having said all that Karen does feel that it will more likely take the route of the first option despite the fact that she would like us all to be more open and transparent. She feels that it could be done, but not without some turbulence along the way.

When Karen started writing the book, privacy was at the forefront of her thinking. Now she is moving more towards transparency instead of changing perceptions of privacy

demanding as the predator asks for more.

'Also what you find in the online gaming world is that you have people who are at higher levels, much like there are more experienced people in the real world who act as mentors, they too provide a sort of mentoring process to help you.

'I know a man whose wife almost started having a virtual affair online with this other guy. Basically she was playing in World of Warcraft and she was at a lower level and he was at a higher level and he was able to protect her so she could get up to a higher level. Then they were going to start using the voice options and actually speaking to each other. They didn't say that it would be an affair, but it looked like it was on the track and she actually stopped it before her husband found out and realised it was a threat.'

Speaking from personal experience Karen says that when someone enters an online world, where they are represented by an avatar, it is very easy to get immersed in it and the gap between the virtual and the real worlds become blurred. She says that she was surprised how quickly she became addicted when she tried out Second Life.

Social networking

Of course one of the biggest areas covered in the book is that of social networking, as children and teenagers have embraced these more than adults.

'This is where we're talking about privacy. There are two things going on, one is that people are communicating and connecting in a way that we've never seen before globally, irrespective of race, colour, creed or gender - it's really exciting and quite wonderful. But also the problem is because everything is digitally stored and it's online and people are building up virtual friends and real friends and they

recruitment process. Potential employers will Google people. It's a really enormous risk and I believe one of two things will happen in the future. One side is that people will be more careful, as these young people grow up and start to think "oh dear I missed out on a job opportunity" they realise that it's because of something that's online and they are not able to get rid of it. Then there are companies that get rid of any information about you that is left behind on the internet somewhere. The other side is that we could actually start changing perceptions of what privacy is.'

Transparency not privacy

Although when Karen started writing the book privacy was at the forefront of her thinking, now she is moving more towards transparency instead, of changing people's perceptions of privacy. In fact she feels that privacy will go one of two ways. The first is that we must change the way that we do things and stop doing certain things. The other approaches it from the opposite direction and that is to make everything more transparent.

'We're tracking our kids all the time with their mobile phones. There is CCTV in nursery schools, and in the schools to prevent vandalism, and for the parents to check that the children are OK, we have biometrics and even RFID tags in school uniforms. If we're doing all this to our children now, they won't see privacy in the same way that we see it today. We are actually saying that doing this online is bad but are invading their privacy with everything that we are doing. So why should it matter in 20 years time? We will say of course we have privacy, I have my private home. Privacy would take on a new meaning. Historically privacy was a very negative word and some cultures, such as in China, have no word for privacy.'



'The London School of Economics is doing a lot of research on transparency enhancing technologies, rather than privacy enhancing technologies. Privacy is to do with cryptography, it's to do with authentication. They are talking about enhancing transparency, allowing you to see what's stored on you, allowing you to know who's tracked you. If you know what's being stored about you and where it is you should be able to do something about it. For example I was at a conference and someone was talking about applying digital signatures to a piece of a webpage, not a whole page, just something like a comment on an article. It means that if somebody wants to use that comment they need to have a key from you. In order to use it they will need to decrypt the work and you will also see if it has been changed. This is about embracing the future rather than fighting against it. Fighting against the tide is useless, you have to swim with it. This is how I think it is likely to go but I think there will be a lot of resistance.'

Karen finished by saying that like all frontiers it takes time for the legal situation to settle down. The internet, like other new territories before it, is going through a period of turbulence but this will pass.

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