

Entwined in the network of networks

The first multidisciplinary internet research institute is shaping policy and practice around the world

► While their grandchildren may spend many hours a week online, only 30 per cent of older people are active internet users

Like so many buildings in Oxford, Number One St Giles has a long and varied history. A private home during the 13th century, by 1505 it was a brew house and by 1660 it was a well-known inn called The Dolphin, where several Civil War casualties languished and died. Today, though, it houses one of the most forward-looking and fast-moving research centres in the University: the Oxford Internet Institute (OII).

The OII's purpose is to create a greater understanding of the social factors that are shaping the internet, and their implications for society. At the centre of this mission is a view that this 'network of networks' is a phenomenon that extends far beyond its technical capabilities and increasingly diverse layers of services to impact not only on our everyday lives, but also on the social, economic, legal and ethical frameworks in which we live. A key aim is to inform policy-making and practice worldwide as a result of first-class research that is independent of governmental or commercial influence.

The OII was founded in 2001 at the instigation of a group of MPs. The idea was taken forward by Balliol College (which owns the OII premises) and was made possible by a £10 million gift from the Shirley Foundation, the charitable body set up by software pioneer and entrepreneur Dame Stephanie Shirley. Funding also comes from the government and the University, where the OII is a department of the Social Sciences Division.

'The OII is unique in that it is not focused on the technology per se, but on the societal implications of the internet,' says Bill Dutton, Professor of Internet Studies and Director of the OII. 'What also sets us apart from anywhere else in the world is that we have a multidisciplinary institute, which we were able to establish from scratch. It was actually a strategic advantage that Oxford didn't already have a department of media or information studies – we could be open, innovative and creative.' Collaboration is already under way both internationally and with University departments like Computer Sciences, Law and the new James Martin 21st Century School.

Research programmes within the Institute are investigating the implications of the full range of existing and future internet use, from its impact on everyday life to its potential at the frontiers of e-science, where researchers worldwide are developing data-sharing technologies that will drive science forward. The Oxford Internet Surveys (OxIS), for instance, are providing authoritative evidence on how people in Britain have responded to the rise of the internet. 'We are trying to understand how the internet is changing people's lives,' says Professor Dutton. 'Why do people use it – or not? We now believe internet diffusion has plateaued at about 60 per cent in the

UK, as it hasn't risen in the last several years; it's about 70 per cent in the USA. The perception that inevitably everyone will eventually have internet access therefore seems not to be the case, on current trends.' The 'digital divide' is serious and increasing, according to the latest OxIS study (undertaken in 2005 and involving more than 2,000 households in Britain, excluding Northern Ireland). People with more education and higher incomes are much more likely to use the internet – and more likely to use it to retrieve information, for learning purposes or to make travel arrangements, etc., rather than simply to download music or use it as an entertainment source. Socio-economic factors will increasingly be emphasised in terms of those who have or don't have access, and this will clearly also be a problem in developing countries.

The OII investigations have raised a new concept, 'digital choice': many people do not use the internet by choice rather than for economic reasons – even if they have previously been users. 'The low proportion of older users is an example of where choice is shaped by habit or a perception that the internet is not important and not needed,' says Professor Dutton. 'But we believe it's an experience technology. Someone can explain the internet and tell you all about search engines, but until you try it, you simply don't get it.'

Amongst those who absolutely do 'get it' are research scientists, who are pushing back boundaries as they share data or images, using groundbreaking Grid technologies as part of a 'cyberinfrastructure' that helps to perform high-speed calculations for global collaboration. Here, the OII is exploring the socio-legal issues behind these developments: who now owns the intellectual property rights, for instance, and what about patient confidentiality when medical images are shared?

Other research areas include how governments can increasingly use the internet and how their citizens can participate in 'e-democracy' activities in relation to the way in which the internet itself is governed. Jonathan Zittrain, an internationally known cyberlaw scholar, has recently been appointed to the University's first Chair of Internet Governance and Regulation. Co-founder of the Berkman Center for Internet and Society at Harvard Law School, he will coordinate a significant research and teaching relationship between the two centres.

Nurturing young researchers in this fledgling area is another priority for the OII. Three summer schools have brought together doctoral students to stimulate their research and initiate networking. The latest, held in Beijing in collaboration with the Chinese Academy of Social Science, attracted 27 students from 15 countries and was put together over the internet. In September 2006 the OII will launch its own DPhil in Information, Communication and the Social Sciences. 'Worldwide, the communications field is somewhat carved up into schools of information, communications, media studies, library sciences, etc.,' says Professor Dutton. 'We believe those areas are converging rapidly with fields like telecommunications. Our doctoral programme, which we hope will become as prestigious as the Oxford PPE, will be rooted in the social sciences but have a deep connection with areas like the computer sciences, engineering and law. We are determined to make this the best place in the world to study this emerging field.'

Of active internet users, 7 in 10 regard it as important or very important to their way of life. The average user spends about 10 hours a week online and 9 per cent say they spend less time with their family as a result, with 17 per cent believing they now read fewer books and 28 per cent watching less television. Unsurprisingly, the young are more confident around the new medium, although 30 per cent of people of retirement age use the internet, and those who do so are generally enthusiastic.

