Neighbourhood Differences in the Use of Information and Communication Technologies

ESRC E-Society Programme

Most people in the UK now have access to information communication technologies (ICTs), whether these are devices that they own or through usage in public places. In these circumstances, digital divides are no longer best characterised by variations in awareness and usage as was suggested a decade ago. Today's key issues, in developed countries, concern emergent patterns of digital differentiation within and between different populations. Such differentiation is becoming manifest in terms of access to different types of goods and services, in the speed and convenience of access, and the availability of new technologies in public and private domains. Paul Longley and his colleagues at University College London have assembled a range of private and public sector data sources to create a nationwide picture of the diffusion and use of ICTs.

- Geographic and demographic variables are essential for the interpretation of new digital divides and for profiling the advantages and disadvantages of the e-society.

- The dataset created provides new geographic classifications of digital divides and if used widely, may improve the evidence base on the impacts of the e-society.

- It is possible to assign households within Great Britain's e-society to one of 23 different types, which can in turn be nested into eight larger groupings.

- You can find out what the predicted form of engagement with ICTs in your neighbourhood is by entering your postcode at the following website:

  http://www.spatial-literacy.org/esocietyprofiler

Background

As the e-society matures with access to digital technology in the UK either at home or in public places becoming more commonplace, the notion of a single 'digital divide' in terms of access is becoming less pertinent as a focus for analysis. More relevant are the emergent patterns of digital differentiation within the population. Such differentiation is becoming manifest in terms of access to different types of goods and services, in the speed and convenience of access, and in the availability of new technologies in public and private domains. In new and subtle ways, high-speed networks, new hand-held and desktop devices, improved interface and system design and reconfigured Internet service providers are having important impacts upon productivity, work and social interaction.

The Project

The overall aim of the project was to examine the emergence of new and subtle polarities in information and communication technology adoption, its increasingly routine usage and its contribution to consumption, information provision and citizen participation. The intention was to develop a Great Britain-wide analysis of consumer access to new ICTs, a classification of households in terms of their usage of and access to digital technologies, and a profile of where different "e-types" reside and the kinds of services that they use.

The research had five main objectives:

· To develop a detailed nationwide household classification based on levels of awareness of different ICTs, levels of use of ICTs and their perceived impacts upon human capital formation and quality of life.
· To anticipate transitions between the categories of this classification, and hence to identify how policy might best improve both the quality and the degree of access by different social groupings.
· To provide the ESRC with a product that would enable the content and coverage of other E-society Programme case studies, as well as other academic research, to be situated within a national picture.

· To illustrate the application and potential uses of the classification.
· To demonstrate the importance of geographic and demographic variables in the interpretation of new digital divides and in the consumer profiling of the e-society.

The research methods employed involved profile matching of a number of secondary data sources supplied by Experian Ltd. Spatial analysis work on households, neighbourhoods, local communities and the wider region was carried out concurrently with the examination of a number of data sources in order to develop a preliminary analysis of the behaviour of citizens and consumers. This work included the acquisition and formatting of sources ranging from Mosaic Geodemographic codes, 'lifestyle' questionnaires gathered by Experian Ltd to publicly available datasets including the Electoral Roll and shareholder registers. Data fusion techniques were then used to develop a household and population classification.

Implications of the research

The research led to the identification of 8 groups, in turn made up of a total of 23 different types. The authors suggest that such classifications have considerable power, and that this work establishes that geographic and demographic variables are essential in the interpretation of new digital divides and in the profiling of many of the advantages and disadvantages that characterise the e-society. A website dedicated to the project, http://www.spatial-literacy.org/esocietyprofiler/, is available which allows individuals to identify the neighbourhood 'e-type' profiles, and to feedback their opinions to the project team.

A summary of these groups is highlighted below:

Group A: E-unengaged

This group of people typically do not have access to electronic communications or technologies. Most are too old, too poor or too poorly educated to be able to access them and instead rely upon traditional personal contacts for trust and advice. This group can be further divided into 6 types of non/user.

Type A01 Low technologies
Type A02 Cable suffices
Type A03 Technology as fantasy
Type A04 Mobile's the limit
Type A05 Too old to be bothered
Type A06 Elderly Marginalised

Group B: E-marginalised

This group is not necessarily adverse to the use of electronic technologies but often lacks disposable income to equip themselves with them, or the training and education needed to understand how to make effective use of them. This group can be further divided into 3 different types.

Type B07 The net; What's that?
Type B08 Mobile Explorers
Type B09 Cable TV heartland

Group C: Becoming engaged

ICT skills are generally gained at work by this group who are generally young people working in junior white collar occupations. They are keen to become more expert in the use of new technologies and many spend time browsing the Internet without necessarily making transactions. This group can be further divided into 2 different types.

Type C10 E-bookers and communicators
Type C11 Peer group adopters

Group D: E for entertainment and shopping

This group includes a number of moderately well paid blue collar workers for whom the Internet and personal computing provide important leisure activities. This group tends to use the Internet not for obtaining information about products of for learning, but rather to provide access to music, games and general entertainment. This group can be further divided into 2 different types.

Type D12 Small time net shoppers
Type D13 E for entertainment

Group E: E-independents

People within this group take a rational and considered view of electronic communications and technologies. They are not interested in mobile phones or the Internet as lifestyle accessories or as forms of focus for leisure activities and they do not feature as major topics of conversation within social networks.   They do however use the Internet to search for information, to buy products and to undertake transactions where there are obvious efficiency benefits. This group can be further divided into 3 different types.

Type E14 Rational utilitarians
Type E15 Committed learners
Type E16 Light users

Group F: Instrumental E-users

This group use electronic technologies for purely instrumental purposes. The ICTs provide a practical method of saving time or money. Generally they use the Internet to undertake transactions and manage their personal finances rather than to explore.   They generally have plenty of other leisure activities that they enjoy and tend to be light television watchers. This group can be further divided into 4 different types.

Type F17 Computer magazine readers
Type F18 E for financial management
Type F19 On-line apparel purchasers
Type F20 E-exploring for fun

Group G: E-business users

This group includes many people who use electronic technologies in order to run their businesses. Many of this group are self-employed and make relatively little use of the technology as a leisure activity.

Type G21 Electronic orderers

Group H: E-experts

Members of this group have every confidence in their abilities to undertake online transactions and to make full use of electronic technologies. They prefer online to interpersonal sources of information, often making use of personalisation and configuration options, and make use of the Internet as an information source for obtaining best value for money. This group can be further divided into 2 different types.

Type H22 E-committed
Type H23 E-professionals

Policy lessons and future research agenda

The research contributes towards improving evidence-based policy by combining the most appropriate methods, techniques and datasets used in the public and private sectors. Additionally, the research can be seen as a contribution towards developing commonalities between public and private sector data provision.

The study of geodemographics and population profiling is becoming increasingly important for improving public and private sector service delivery. The research has been integral to the creation of a dataset that provides new geographic classifications of the specificities of digital divides.

Investigations into how this classification may be used to develop scenarios for a number of applications in regional and urban policy analysis, such as voter interest in developed regional assemblies will continue.

The associated website, http://www.spatial-literacy.org/esocietyprofiler/, opens this research to general scrutiny. It is hoped that, through public and researcher participation, the classification process may be further honed and methodological developments encouraged.

Further Information

For more information on the research project, please contact:

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The e-Society Programme

Funded by the Economic and Social Research Council and co-ordinated by the Department of Sociology at the University of York, the e-Society is a multidisciplinary programme of research that seeks to investigate how institutions, practices and behaviours are being changed by the technologies that constitute the digital age. This £5 million programme draws on the expertise of leading academics from across the UK. Launched in October 2003, the programme will run until the end of October 2007.

**Further details of the projects in the programme can be found at
http://www.york.ac.uk/res/e-society/**

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www.york.ac.uk/res/e-society/