Multispeed Cities and the Logistics of Living in the Information Age

ESRC E-Society Programme

Whilst research on the so-called 'digital divide' is well established, it has thus far tended to focus on mapping different levels of access to the Internet between different income, gender and ethnicity groups. However, this focus limits our understanding of the importance, in practice, of uneven access to Information Communication Technologies (ICTs). This project, conducted by Mike Crang and Stephen Graham from the University of Durham, examined how ICTs work together to influence and negotiate the time and space of everyday life by comparing a relatively privileged and a relatively disadvantaged neighbourhood within one UK city.

- The complex patterns of use and access to a variety of technologies can not be understood merely through measures of ICT ownership.
- ICT use is often more collective and collaborative, beyond the household level, than is usually assumed in individualistic measures of the digital divide.
- In the poorer area studied, ICT use tended to be for deliberate and specific purposes.
- In the richer area ICTs were both more available and used continually. They formed pervasive infrastructures underpinning everyday life.
- Interviewees in the poorer area tended to remark upon periods of connectivity whilst those in the richer area tended to remark upon periods of disconnection.

Background

Research conducted on the digital divide has successfully traced the uneven spread of online access between different social groups and geographical areas. However, the authors argue that what is missing from this research is an examination of the qualitative effects that access, or lack of access to ICTs has on individuals, households and neighbourhoods. Gaps in research, it is argued, limit our understanding of the importance, in practice, of uneven access to ICTs in wider processes of social exclusion.

The Project

This project simultaneously examined how ICTs relate to social inequalities through their use in orchestrating the social organisation of time and space of both a privileged and marginalized neighbourhood within a single UK city (Newcastle upon Tyne). The project explored how digital inequalities become manifest in everyday life for privileged and marginalized groups. To do this it looked at the ways in which ICTs enable the 'compression' of more activities into shorter periods of time for those with access. In parallel, the project also analysed the 'extension' of burdens and barriers, for those who with lower levels of ICT access.

The main objectives of the project were: to examine the effects of multiple information technologies on social division and everyday life; to examine how information technologies intersect with the time-spaces of the city for both relatively privileged and marginalized groups; and, to examine whether 'information-rich' communities (tending to be cash rich but time poor) are enabled to compress more activities into the same amount of time while 'information poor' ones are made to incur higher costs in terms of time, and possibly money, in accomplishing the same tasks.

Implications of the research

Access to ICTs

The research found that the pattern of landline usage of telephones between the neighbourhoods was not statistically different in terms of use. In the area of relative wealth, a higher proportion of households had more than one telephone line with the most frequent reason given for multiple lines being internet use and/or providing additional access for teenage children. The dependence on the telephone was greater in the relatively privileged area with a higher number stating that the telephone was 'essential' to their lives. Mobile phones were regarded more as social tools with the vast majority using them mostly to contact family and friends.

The research found that those in the privileged area were more likely to have access to the Internet at home. However, the authors argue that whilst income might have some impact on access, it was not the only reason affecting access. In addition, the often conjectured view of the lack of education, social capital and skills affecting use was found not to be the case in the areas studied. Those living in the relatively privileged area were more likely (8.2 per cent compared to 3.3 per cent) to say that they do not know how to use the internet. As the authors note, this flips expectations and suggests that there are reasons to be sceptical about policy programmes which concentrate on training initiatives as a solution to the digital divide.

With regards to public access points, a higher proportion of those from the less privileged area use internet cafes and local library provision. Despite the implementation of 'e-phones' and 12 kiosks in the city, the research found no respondents using them. In other words, the authors argue, the research suggests that meaningful access cannot be said to be provided by the mere presence of these physical facilities.

Shared use, hidden use and forgotten use

The research found that a proportion of individuals who do not have access to the internet at home had used the internet either personally in another person's home or more often, indirectly through another person. The authors argue that this suggests that existing social networks provide means of gaining the benefits of the e-society, and these benefits reinforce the power of those offline social relations. In addition, they suggest that that there is less of an absolute 'divide' in access and more of a complex picture where inequalities are closely related to modes of ICT use.

Modes of Use

Episodic versus pervasive styles of access

The research found different modes of use between 'discrete episodes' mostly for instrumental and specific reasons and a more constant, pervasive and 'background' presence of ICTs.

For some, mainly concentrated in the more privileged area, the technology gradually embeds itself until it becomes an essential, 'always-on' infrastructure supporting every aspect of daily life. It also becomes a purveyor of a lifestyle where people moving through the city separately, but interdependently, use it to orchestrate the increasingly speedy and complex logistics of their everyday lives. Telephones were generally rated as the most vital technology with mobile phones seen to be equally 'vital' as landlines.

In the less privileged area where home access to the internet was less common there was still evidence that people were able to access some of the benefits afforded by online connectivity although generally such use was found to be more 'episodic' characterised by patterns of specific, occasional ICT use. Such use was often shared or mediated drawing on family or neighbourhood social ties. Many respondents in this area without home access to the internet had actually undertaken specific purchases indirectly using offline social networks so accessing the benefits of online commerce. These social networks were found to be intensely local and bound into everyday life. The research also found people who were clearly able to access online products when they wanted but only did so for specific tasks where there was an overriding financial benefit.

Interviewees in the poorer areas were more likely to remark upon periods of connectivity, those in the richer area tended to remark upon periods of disconnection.

Hurried, harried and organisational tactics

ICTs have often been identified as being solutions to problems of 'time-squeeze' by removing spatial barriers and/or enabling the time shifting of activities. The research found examples of how ICTs, particularly mobile phones, were being used to turn 'dead time' into 'useful' periods. For some 'pervasive users', mostly living in the more Privileged area, the capacity to multi-task was experienced as the fragmenting of time and attention. Informants acknowledged that some activities might be made easier, but also that the ease of contact now meant work pressures for immediate replies and continual 'contactability', both locally and internationally, giving a sense of everything 'speeding up'. Respondents outlined a paradoxical sense of expanded spatial possibilities but within a framework of increased time pressure.

The contradictory nature of using ICTs and its impact on everyday lives is demonstrated by the research in its investigations on the take-up of e-commerce.

The research found that those in the more privileged area were more likely to use the internet to bank, pay bills online and shop. Motivations for grocery shopping online varied between its ability to overcome spatial obstacles to its affordance of 'time-shifting' allowing for ordering to take place whenever was convenient. However, whilst the shops providing online services were keen to be seen to offer flexibility by overcoming some barriers, they also created other time constraints namely the need to ensure that someone was at home for delivery. As respondents in the research noted, you had to have predictable lifestyles to be able to order in advance.

Online and telephone banking were also discussed extensively. Online banking was repeatedly cited as more convenient then conventional services in terms of access. Telephone banking was not seen as effective as online banking with call-centre queuing and option systems reported as being time-inefficient.

Scale and community

Whilst identifying that global ties do not simply replace local ties, the research found examples of global interest networks being enabled by the new media. In addition, the research found a number of examples of local connections being maintained using the new media. In particular, it was noted that ICTs were now crucial in arranging face-to-face social contacts and orchestrating daily routines within both the neighbourhood and the wider city. Informants did not see either the telephone or the internet reducing face-to-face interactions with friends and family. They were seen as speedier and more cost effective means of communicating with distant relatives and friends.

Policy Lessons and Future Research

The research found that text, mobile, landline and email sustain and support more traditional social networks rather then replacing them. These technologies intersect with, and are augmented by, wider electronically enabled links to more distant geography and social worlds. However, the relationship between physical and mediated social contacts seem synergistic rather than substitutional. The study indicated complex mediations of global and social spatialities.

The project suggests that affluent and ICT-literate groups and neighbourhoods are tending to use ICTs continuously, individualistically and pervasively as the 'always-on' background infrastructure sustains, along with physical transportation, their accelerating everyday lives. Using ICTs in this way facilitates their accelerating lifestyles and mobility patterns of such groups and helps them to cram extremely dense and flexible patterns of transaction, interaction and communication into their lives. Often these are accompanied by increasing feelings of time stress. Consequently such users tend to value and note spaces of disconnection which provide domains away from the pervasive, ICT-mediated acceleration.

The authors argue that the research findings suggest that future research should take a more sophisticated view of how social exclusion and ICTs inter-relate. Rather than simply addressing the physical or technological exclusion of marginalised groups and neighbourhoods, this project suggests that attention should fall on the differences in the temporal and spatial patterns of ICT use amongst marginalised groups.

In particular, the project demonstrated that marginalised groups, rather than necessarily being excluded from ICTs *per se*, tend to use them infrequently, with help from family and friends, and to undertake limited and tightly confined transactions, communication or information searchers. In contrast to 'pervasive' ICT users, such subjects tended to value and note those spaces and times of connection rather than disconnection.

Future research on the links between ICTs and social inclusion or exclusion will need to explore further and in a wider range of empirical contexts whether the main findings of this project: that the digital divide now falls as much between pervasive and episodic use of ICTs as between users and non-user groups; that 'hyper-inclusion' tends to be associated as much with feelings of loss of control and time squeeze rather than empowerment; and that media tend not to replace ties in but remediate them, apply in a more general way.

Further Information

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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/