

Real or virtual: what different research strategies are needed for exploring social aspects of the Internet?

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Introduction

The Internet is often seen as a different world, virtual rather than real. This poses the question, to what extent can current strategies be applied to researching the social interactions of the World Wide Web? There is a gradual building of knowledge and expertise on this issue but, with rapid change to both the technologies and the use made of them, it is a project that has to be ongoing. As issues of motivation and control are an essential part of the real world, so also in the virtual, but the researcher needs to be aware of their different manifestations in order to develop a sound methodology.

The aim of this paper is to take some of these almost taken for granted research strategies of the real world and examine how far, if at all, they are appropriate for researching social aspects of the Internet. To make this aim feasible, I have restricted the social to a focus on groups that have a political or cultural bias and to the relationship of these Internet groups with social change in the real world. My emphasis throughout is on methodology rather than method, research strategy rather than research techniques. For the latter, there are a number of useful books available on this subject which highlight both the similarities and differences of researching real and virtual contexts.

The paper starts with a discussion of the nature of innovation in researching the virtual world as a social context and gives a broad brush approach to the methodologies that are possible and appropriate. I then follow a conventional research framework in order to highlight at each stage the particular strategic features of Internet groups and the nature of the Internet itself that will have an influence on the formulation/reformulation of the research question. The main points covered will involve literature searching, finding relevant groups and issues of sampling, the control and survival of groups and deciding what is evidence of change as a result of group activity.

Innovative methodologies for researching the virtual world

Hine (2005) points out that, although the Internet is a cultural context in its own right, it cannot be seen as functioning in some way apart or separated from the off-line context. "On-line experience is at all times tethered in some fashion to off-line experience" (Jones 1999 xii). Social life does not have neat boundaries between different contexts and currently knowledge of how the on-line and off-line contexts interact or combine is limited. An approach favoured by many is, therefore, to use both on and off-line contexts within the same project. For example, Hine (2005) suggests that the starting point for on-line research can be the off-line context of home, school or workplace. My own project examining Internet groups and their effect on social change has to move from virtual to the real for evidence.

Another difficulty in undertaking social research of the virtual is that the way in which individuals use the Internet is very variable and depends largely on their own personal goals. However, "an understanding of the social aspects of Internet behaviour is crucial to the effective design of Internet based methodology" (Joinson 2005 p.21). There is evidence that the high level of personal identification with Internet groups that tends to occur can lead to high levels of self disclosure. For researchers to tap into this by using their own self disclosure in order to encourage reciprocity may seem to be a way of generating good quality data but any potential threat to anonymity may work against this. The ongoing debate on academic rigour will also need to be acknowledged. If the decision is made to include several approaches within the research design, then adequate evaluation must conclude that different modes of measurement can lead to different results (Jankowski and van Selm 2005). Such issues need to be addressed within the overarching strategy.

So, to what extent are methodological innovations going to be needed for social research on the Internet? Although the new technologies may require new or modified techniques, for example,

hyperlink analysis or a rethink of survey approaches, the general consensus from writers on social research is that the application of conventional research methodologies to the Internet is more useful than looking for something that is only applicable to the Internet (Jankowski and van Selm 2005). However, a historical view of research development in the social sciences indicates that innovation has always existed. It seems highly likely that rather than any major methodological departures at this juncture, the level of innovation will be about modifying current approaches, whether these are positivist, critical, post-structuralist, etc, etc. The inherent validity of whatever overarching methodology is chosen will remain as it was and is.

The rest of this paper looks at the strategic implications of various stages of the research process on the Web, starting with the literature search.

Literature searching

Research into on-line literature searching is at a fairly early stage. I suggest that there are two facets to this activity that have methodological implications; the searching behaviours of the users and the choice of search engines.

It often takes time and even a number of false starts before specific research goals are decided. This has always affected social science literature searching behaviour so it is not surprising that a number of studies of Web searching find a multiplicity of data gathering methods and patterns (Hsieh-Yee 2001). The analysis by Jansen and Pooch (2001) did, however, identify some differences in behaviour when searching the web compared to more traditional approaches. For example, the session length and number of terms per query were both much shorter when using the Web although the number of results from each search actually viewed was similar (approximately 10 documents). The authors point out that based on only a small number of studies, it is difficult to draw any definite conclusions, but suggest that Web user studies are an important research route to develop. My own very subjective conclusions as to the potential effect of user behaviour differences on the Web are that the lack of precision displayed may well be a way of opening up previously unconsidered material. This may then be seen as having a bearing on the original ideas and act as a trigger to considerable creativity in the research process. The downside is the continuing temptation towards lateral thinking to the detriment of some forward progress!

The other increasingly important issue of literature searching on the Web is the choice of search engine. Although Jansen and Pooch (op cit) report on a limited number of studies of search engines from the perspective of the user, this omits the importance of the search engine's actual construction. It is this latter point, along with the fact that the search engine market has become highly competitive as well as increasingly political, that has particular research implications.

Every search engine has specific criteria to use on the selection and indexing of material. Valued criteria could be inclusivity, fairness and scope of representation (Rogers 2004). For the academic, there may also be issues regarding reliability and validity but these criteria may militate against inclusivity and scope. For the social researcher, an awareness of the "back-end politics" of search engines (op cit p.1) seems vital in order to maintain alternative accounts of reality. Variations between search engines can, in my experience, be noticed quite quickly in relation to the scope of the search. Again, at a personal level, the advice given to me by a librarian to use Google Scholar for breadth of response was excellent.

Social groups on the Internet (1) finding and sampling

The Internet researcher is spoilt for choice regarding social groups but, as pointed out in the previous section, the ebb and flow of social research may make the initial criteria for the selection of groups difficult to decide. As for any off-line context, building in some kind of piloting stage may be appropriate in order to explore access and sampling.

Web based groups can be totally open, moderated by membership or totally closed (members have to be invited to participate). They may be formally constituted or set up ad hoc by any individual. Size is massively variable and difficult to pin down with any accuracy. Those

participating in Internet groups may have markedly different motivations from each other as well as varying responses to being researched depending on the value put on maintaining anonymity. Many of these issues are more likely to affect method rather than methodology but the following points are relevant to the overarching research decisions.

Who visits or joins Internet groups that are forums for discussion on social and political topics will have to be acknowledged and incorporated into any research study. Mann and Stewart (2000) suggest that social interaction on-line is dominated by white, mostly young, males from higher social classes who are more culturally aware. However, Mann and Stewart do realise that this may be changing as women become more comfortable with accessing Internet groups and the whole culture of computer mediated communication changes. In fact, Gosling et al (2004), undertaking psychological Internet research, suggest that their samples were as diverse as traditional samples. However, what does need to be taken into account for social research is that there are insiders and outsiders as regards access and usage. Also, power relations on-line appear to be similar to those off-line (Mann and Stewart 2000). In addition, those who actively participate (posters) are unlikely to be representative of the general population whereas those who only visit (lurkers) are more likely to be typical in demographic and political characteristics (Davis 2005).

These findings, particularly the differences between posters and lurkers, have important implications to the research project. If what is required is access to vocal literate communicators, then observation and analysis of postings will satisfy research aims. However, if a more typically representative sample is required, then different approaches are necessary, either off-line or by requesting responses from the lurkers which they may be unwilling to give as they are perceived as intrusions into their private lives (Andrews et al 2003). However, reasons for "lurking" are various and supporting lurkers to participate is shown to increase lurker satisfaction (Preece et al 2004).

Social groups on the Internet (2) group control and survival

Discussion of the back-end politics of search engines has already raised the important issue of freedom of information versus some kind of control over access to materials on the Web. Carr (2008) sees power on the Internet shifting back and forth between the individual and institutions as technological developments become tools of empowerment. In relation to groups, the researcher needs to assess the degree of freedom of expression given to posters by the moderator/adjudicator of that particular forum.

Most groups will have some rules or voluntary guidelines regarding participation. For example, do not post material that is obscene or offensive, avoid "flaming", do not breach privacy. The larger groups may set out fairly lengthy rules and guidelines (see the Politics Forum, www.politic.co.uk) but less obvious means of control hinge on the overall structure of the site that directs and contains postings that have to be in alignment with official accounts of reality (see Rogers 2004 on the UK on-line Citizens' Portal). Failure to do so results in "This message has been removed due to violation of Code of Conduct 4, please refer to Terms and Conditions" (op cit p.10) or the post merely fails to appear without any reason being given.

An awareness of this "front-end" politics clearly has methodological implications. The advantage of using larger well organised groups re volume of material and possible archiving resources has to be set against the limitations of freedom of expression of contradictory opinions.

This brings me to another concern in the research design, the growth and longevity of groups. As already pointed out, individual motivations for visiting/joining Internet groups are varied. The intention of some small groups is to stay small and provide social and emotional support to a circle of virtual friends. An emphasis on cultural/political motivations may lead to small groups growing rapidly in response to some national/international trigger (McKenna and Bargh 2000). An example is the Facebook group, "British jobs for British workers" that grew rapidly in the first quarter of 2009 (www.facebook.com). Decline in members/visitors to groups can be as rapid although there is little research on this topic. Regarding longevity, a long term study of a discussion forum catering

to the needs of Pacific islanders resident in the USA, Australia and New Zealand, shows that this group has been in existence since the mid 1990's (Franklin 2003) and appears to meet their personal and political need for support.

Some research has been done on the lifespan of specific threads and topics within groups. Ebb and flow seems to be the rule. On topics, some documents disappeared, some were added and some underwent changes (Bar-Ilan 2006). On discussion threads, a shift in a line of thought will, not surprisingly, influence the contribution patterns of subsequent users. However, active threads may unexpectedly fade away and older threads be reactivated and regain centre stage (Hewitt and Teplov 1999).

A greater understanding of on-line communities should lead to an improved ability to predict growth/demise of both groups and threads. At this stage, a critical component of a thriving forum is the types of people that form it. As well as posters and lurkers, Bishop (2007) identified a third category, "elders" who have been in the community for a long time, participate regularly and support others. Understanding what drives these elders may well be the key to Internet group success and survival. An awareness of these informal features of group function is likely to add to the efficacy of research choices.

Internet groups and social change

This paper has emphasised that on-line experiences cannot be seen as totally separate from off-line living and this last section explores some of the methodological issues of identifying the relationship between virtual group membership and real change. As Jones (1997 p.30) put it: "the Internet allows us to shout more loudly but whether our fellows listen, beyond the few individuals who may reply, or the occasional lurker, is questionable, and whether our words will make a difference is even more in doubt."

Decisions have to be made as to what counts as change. Changes in behaviour can be reported by the research subject but it is difficult to be sure whether these are more hoped for than real. Observed changes would be more reliable but usually require quite large numbers of participants to be noticed. For change to actually have an effect on the cultural and political canvas in any marked way requires a longitudinal/historical perspective that, where the Internet is concerned, may not yet be available.

These definitions of change all rely on something occurring in Internet groups that then effects a change in the real world. Hagemann (2007) suggests turning this on its head. Seeing the on-line world as an extension of the real world, the raising of issues on-line that have been neglected in mainstream discussions is potentially an important component of change. The development of pressure groups back into the real may then influence the political agenda and this is a conclusion reached by some of the studies mentioned here. However, the main value to this paper of these studies is to illustrate the importance of defining what actions are seen as acceptable measures of change. Four studies that were politically driven are summarised below. They use different routes and methodologies but all find ways of measuring change in real ways.

Watson (1997) uses research of how a music group Internet fan community was able to influence both the band and the larger record company in material selected. He sees as important the model by which these fans won better representation. First, there was an intuitive and unspoken recognition of them as a community worth the effort of appeasement by those in positions of power (capitalist logic) and secondly, that this community was large and coherent (possibly illusory) in spite of the fact that of the stated 50,000 members, only a small number were posting. Watson suggests this model can be transposed to the political arena, where it would be driven by common interest demands.

Clark and Themudo (2005) specifically use social movement theory to study the role of the Internet in mobilising antiglobalisation protests by attracting support, co-ordinating action and disseminating alternatives. As a result, social movement and activist dynamics are changing. Another approach exploring the relationship between Internet communication and politics suggests that previous work

has focused on traditional measures of change. Bentivegna (2006) points out that significant changes have occurred but outside the formal political arena into social movements, civil associations and single issue groups.

Finally, a wide ranging study of the impact of the Internet on political activism in Europe (Norris 2008) suggests that it is unlikely that the Internet will revitalise mass participation in democratic processes. Instead, using four dimensions of activism, voting, campaign orientated, cause orientated and civic orientated, she found that the rise in the knowledge society in Europe has had its greatest political consequences in strengthening cause orientated and civic orientated behaviours. This is seen as being integral to new patterns of democracy facilitated by social movements, advocacy networks, community activists and development workers, and single issue causes.

Summary and conclusion

Although plenty of work has been done on the modification of research techniques for the Internet, it is difficult to find a coherent body of work on the necessary alterations to overall research strategies when examining the virtual world. This paper has attempted to pull together a number of disparate sources that will assist the social researcher in firstly, not making inappropriate or invalid assumptions about the research process on the Internet and secondly, evaluating the strategic implications of the various stages through which the project must pass.

The conclusion is reached that in the cultural and political arena there are differences and issues that need to be recognised and addressed. It is also a changing and developing canvas as shifts in power and motivation alter the balance between freedom and control. The researcher in this area of study will need to continue to be alert and critical.

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