

Assignment 3

The Internet provides both opportunities and risks for social researchers. Using examples drawn from your work in the unit as a whole, analyse the effect of the Internet on research design and methods

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Date Submitted: November 20 2003

Word Count: 2,100

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The Ups and Downs of Online Research

As with so many other parts of life, the way that research is undertaken, and the research methods available to researchers are being changed significantly by the Internet and new computer technologies. New methods of research are emerging, and most existing areas are being transformed with new techniques for collection and analysis. Not all of these changes are positive or without fault however, and researchers need to be specifically aware of the shortcomings of some online research methods before they are undertaken. This paper will briefly analyse some of the new methods, design and implementation options, which are now available to researchers, and review their relative benefits and risks in relation to traditional, offline options. This analysis will be based around the four common cyber analytic methods of online focus groups, online ethnography, online surveys, and web traffic analysis.

Focus groups are traditionally recognised as “a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research” (Powell & Single, as cited in Gibbs, 1997). This definition still stands for online focus groups, however the participants will most likely be ‘virtually’ assembled, rather than being physically co-present. The fact that participants need not be geographically proximate is one of the main advantages of online focus groups, and means that they give the researcher access to a potentially wider group of participants than would otherwise be possible, since there is no requirement for them to meet face to face. Assuming that the group is conducted in some sort of closed, online chat system, other major benefits would be the availability of a completely accurate transcript upon completion of the group (as per the typing of each member, created by the system software), and the relatively low cost involved for the researcher (hosting the chat, perhaps some sort of incentive; participants would supply their own internet connection and computer hardware). According to Van Nuys (1999), online focus groups provide “savings on time and cost” which will no doubt benefit any research programme.

Researchers should be careful to remember however, that there are disadvantages to executing focus groups online. Participants would all require a certain level of computer literacy, which may alter the pool of available respondents. These people would need to be able to type well enough on a keyboard to articulate their opinions on the topics being

discussed, as slow typing can sometimes lead to people becoming frustrated at not being able to get their thoughts out fast enough, especially in an environment which begins to feel very much like a face-to-face conversation. Participants would also benefit from some experience in online chat situations, because these can be quite confusing for beginners, due to the way that most of them integrate each person's comments in a continuous stream of entries. Researchers should also be aware of the difficulties that can be involved in confirming the identities and personal details of the participants in their focus groups. Due to the relatively anonymous nature of the Internet, coupled with the fact that it has "become famous for its playful possibilities" (Wittel, 2000) in regards to one's personality, researchers will need to be particularly careful to recruit people who are appropriate for their research.

A warning about ensuring the validity of identities of participants also needs to be made to researchers involving themselves in online ethnographic studies. As opposed to the direct, physical contact involved in traditional ethnography, it is sometimes difficult to confirm the true identity of those involved in online studies. By the same token, the researcher needs to be careful to ensure that their intentions and the nature of the research are fully disclosed to those involved, as it is all too easy to observe online without informing those being observed. This falls into the traditional category of deception and informed consent as far as ethical considerations in research go, and should only be used as an extreme last resort (National Health and Medical Research, 1999).

Identifying a sub-culture or group to be studied online is likely to be quite easy, due to the self-organising nature of groups within such specific media as mailing lists, online discussion forums and chat servers. If the researcher is careful to select a defined group within these mediums, then they should find themselves amongst a relatively tightly focussed group of individuals, matching their targeted research area. It may, however, be more difficult than in traditional ethnography, to ensure that all members of a group are actively included in a study, due to the fact that at any one time, only a small number of the members of a group may actually be online. The asynchronous nature of much communication on the Internet means that this will likely be a consideration in most online cultures. With this in mind, the written nature of these communications means that collecting them from an archive of some sort may be easier, since the researcher can

access a record of all communicative transactions, rather than trying to 'catch' them as they go past.

Once materials are collected, the researcher (in all forms of online research) needs to be specifically careful to protect the privacy of the participants. Due to the nature of the Internet, a single text quote could potentially lead to someone discovering the exact location (and time) that the study took place, and potentially the identities of those involved. For this reason, researchers need to be careful when disclosing the names of groups (or individuals) being studied online, or even quoting them directly, since any of these pieces of information could lead to the discovery of the source. Frankel and Siang (1999) state, "[i]nvasions of privacy happen when research participants lose control of the types of personal information revealed about themselves." This is exactly the situation that participants (and researchers) may find themselves in, if the researcher doesn't protect gathered information adequately. Procedures such as using encryption and/or passwords to save data, using secured (encrypted) communications and ensuring the physical security of the workstations where data is saved are just some of the methods which can help to ensure the privacy of participants through the protection of their data. Computer security specialists should be consulted if required to ensure that appropriate precautions are being taken. Some of these data security considerations should also apply to more traditional ethnographic research, assuming that the data is stored on a computer, however the connected and relatively permanent nature of information on the Internet means that online ethnography requires a greater level of caution.

One area of research that has been transformed and significantly popularised by the Internet is that of surveying. Online surveys are a booming industry and are being implemented by both academic and commercial institutions in numbers never before seen. According to Witt, as cited in Dillman, Tortora and Bowker (1998), delivering surveys online promises such benefits as the ability to collect large numbers of responses, increased convenience for respondents (completing the survey in their own time from the comfort of home), lower costs for the researcher, reduced (eliminated) need for data entry and streamlined analysis processing (direct entry into back-end, real-time reporting and statistics). Even online surveys have their problems however, with new concerns for the validity and cultural diversity of respondents (in Australia, 57% of households with Internet access had an income of \$50,000 or more per annum (ABS, 2000)), the computer literacy

of those involved and the technical requirements imposed on survey design affecting the outcome and 'completeability' of the survey (Dillman et al.). Despite problems such as these, online surveys continue to increase in popularity, and are likely to do so for some time. New technologies and improving skill levels amongst the broader community are likely to solidify this method as a valuable tool in many forms of research.

Apart from the changes that the Internet and cyberspace are bringing to existing methods of research, they are also allowing researchers to explore new fields of data which were previously unavailable. Although "most server-side tracking tools were originally developed for Webmasters" (Sandom, 2000), they can still provide valuable data which researchers may use to identify visitor page-view patterns, purchasing trends, search/retrieval connections and points of dissatisfaction with a web site or other online application. In the case of e-commerce, the data gathered from web traffic analysis could be seen as parallel to what could be gained from a detailed observation of all customers in a retail store, charting their movements within the store, combined with their purchases and the points from which they left the store. This sort of observational analysis is well out of reach for smaller retailers, but even quite complex web traffic analysis can be performed at relatively low cost. Most web servers silently keep logs of all traffic that they handle, which can be compiled and analysed at a later date with the appropriate software. As with other online research methods however, there are potential problems with traffic analysis. An all too common mistake is to associate 'hits' with the number of unique visitors to a website, when in fact this is the equivalent of counting every time someone in a retail store picked up a different item, as them being a new customer. 'Hits' are more accurately associated with the number of requests that a web server responds to, which includes requests for images, pages, animations etc.

The web server will be logging all traffic that it responds to, and should thus provide an unbiased view of what is happening in the online application that it is hosting. This quantitative view provides valuable statistics to work with, however as Benjamin Disraeli famously stated "there are three types of lies – lies, damn lies and statistics." All statistics are open to misinterpretation and can be selectively used to present different views, web traffic statistics being no exception. Researchers will need to ensure that they are unbiased in their dealings with these figures and that they work with, and present them, in a suitable manner. Factors to take into consideration will be the inaccuracies caused by

problems such as requests not coming with a user agent string (thus affecting analysis of browsers and user agents in use), automated requests from content aggregators and search engine spiders (increasing gross traffic, but not representative of actual users visiting) and false (spoofed) values for things like IP addresses and referring URLs. Researchers will also need to ensure that they are not invading the privacy of customers by tying the browsing habits and identifiable purchasing trends of specific customers too closely, since most traffic analysis occurs without informed consent of any kind. New forms of web traffic analysis, and new technologies (such as cookies, which can be used to personally identify a browser) will continually change the face of this type of research, and will likely become even more important in the future as analysis methods become more advanced and the insight gained from that analysis more rich.

Clearly, the emergence of online research has enabled researchers to improve some of their techniques, to develop entirely new ones, and to explore entirely new fields. This new frontier provides valuable opportunities, which cannot be ignored. As with the influence of the Internet in many other areas of life however, both positive and negative factors may be observed in these changes. Internet-based research doesn't remove the tried and tested requirements for ethical research procedures or careful handling of collected data, and there are indeed new considerations, which relate specifically to data collected online. Researchers will need to be careful not to get caught up in the 'whimsy' of online research and violate such fundamental practises within research as informed consent and avoiding deception. They must also strive to ensure that data collected is meaningful and accurate, and that all possible factors, both societal and technological, are taken into account in both the collection and analysis of that data. If researchers are able to develop this new environment and modify their own standards and guidelines to suit it, then the Internet will no doubt become an extremely valuable research tool and subject. With society appearing to be migrating towards an 'online life', this form of research will become more and more important in the coming years, as it will slowly become a major consideration when analysing behaviour, culture and personality. Sociological researchers are now poised at the edge of a new era, and it is up to them to ensure that the best interests of the people they are studying remain at the heart of their work.

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