.

'OPEN' ETHNOGRAPHY AND THE INTERNET IN THE FIELD: INCREASED COMMUNICATIONS, FEEDBACK, AND 'USABILITY' VERSUS TECHNICAL AND ETHICAL ISSUES

STEPHEN M. LYON

Introduction

IF the term 'information age' is to have any meaning, then it should have an impact on the way academics, who have always been involved with 'information', conduct the 'business' of academia.[1] We must ask ourselves how we can best manage this capacity to produce information overloads. During my doctoral field research, I attempted to combine information technology (IT) with 'old-fashioned' ethnographic research in order to enhance not only the collection of data, but also my analyses in the field. In the first part of this paper I discuss the merits of 'open' ethnography as a methodological principle and argue that this is good for the discipline and why it ultimately produces better anthropology and better anthropolo-

gists. I discuss some of the practicalities of using IT to facilitate this openness. I then look at the effect the internet and other ITs had on my fieldwork. I briefly mention some of the ethical and technical considerations which arose during my preparation for the field, as well as while I was in the field.

Access to primary data becomes critical when confronted with the Data Models of others. Data Models emerge from an examination of actual data. They are consequently only as good as the data from which they emerged. Theory Models, on the other hand, are generated to deal with specific issues and concepts and are not dependent on data for their development. In order for Theory Models to be considered valid, Read argues (1990) that they must be isomorphic with Data Models. In other words, a model developed to explain something must be logically equivalent to a model developed out of a particular set of data. If a Theory Model cannot account for what emerges from a Data Model, then either the Theory Model is invalid or the Data Model was based on unsound data. Theory models lend themselves to use by anyone because they require only the application of data for verification or refutation. Data Models are more problematic in that one cannot wholeheartedly make use of a Data Model without a solid grasp of the data from which the model emerged. Judicious use of the internet while in the field can provide a valuable control mechanism on data collection and consequently on the production of Data Models. What is significant about organizing and maintaining primary data while in the field is that the method and rigour necessary to make data available for the internet turns even mediocre data into something that can be used by others in assessing the Data Models that researchers come up with in more 'polished' analyses.

Information technologies, particularly the internet and the world wide web, can be integrated into extended field research in a serious and helpful way. I attempted to maximize my use of electronic media to aid in data collection and storage in such a way that access to these data over the internet is rendered feasible in conditions of ongoing research. I set up a skeletal website before leaving England and maintained it directly from the village during my extended doctoral field research. I used the website in interviews with people in the village and kept track of their reactions. I video-taped events, interviews, songs, and stories and played them back to people to obtain more information. I recorded conversations, interviews, stories, and songs in order to improve my language skills as well as to play them back to gain more information. Although this meant that in some ways I remained in my 'own world' to a greater extent than some anthropologists, it proved its usefulness in several ways. I enjoyed increased feedback with external academics and non-academics, and contributed to my informants' understanding of my role in the village. Naturally if I were to do the research over again I would change things, but the structures that were put in place for me to do this fieldwork allowed me to maintain a website, make available large parts of my data, and still carry on research.

There is one aspect of what I discuss here which was a not a feature of my website but which should be available to the next doctoral candidate to attempt this way of working. The search and extraction engines have not yet been made available on-line. There is a good reason for this: I was the guinea pig. We first had to determine how and what to extract and how to set things up. I include information about the extraction engine in this paper because, while it was not a part of my website or my ongoing research, it is a vital component in producing better data from the field.

The ongoing website was a collection of text documents with some audio and video material and edited field notes. Every field-note entry included a header indicating the date, time of day, place, and persons, as well as an abstract for almost every entry. To compensate for the fact that my personal diary was not being made available for publication, I wrote a weekly update which resembled a personal diary in which I included how I felt about much of what happened, as well as giving a brief summary of the highlights of the week. I tried to write monthly reports focusing on the ways I did research and some of the major topics. I included a section in the website for recorded music and some photographs, as well as local people's writings (sadly, local writing was not tremendously forthcoming). As the research progressed I found that there were things that simply did not fit into any of my preconceived categories, so they were simply linked to the front page in a list with no particular theme. These included things like kinship terms, census questionnaires, photographs, and party invitations.

Open Ethnography

My doctoral research is an experiment in 'open' ethnographic fieldwork. From the moment of deciding to do a Ph.D., I intended to have an ongoing website while I was in the field. There were several reasons for this. First, I like the idea of sharing knowledge in such a way that mistakes can be made visible. Secondly, I like data, and the world wide web and CD-ROM are ideal for including large amounts of data that can be organized in usable and non-cluttering ways. Thirdly, while I prefer single-authored ethnographies in publication and intend to do my own that way, I wanted to include some of my informants in the academic side of what I do. I wanted them to see what I did with the notes I was constantly scribbling onto little scraps of paper.

Open ethnography does not mean anthropologist-centred ethnography. Reflexive accounts of anthropologists in the field are useful, and novelized works like Bowen's *Return to Laughter* (1956), Barley's *The Innocent Anthropologist* (1983), or Watson's more academic edited volume *Being There* (1999) serve a valuable role in bringing fieldwork and ethnographic research to life. All these works focus primarily on the anthropologist, however, and therefore fall into a different cate-

gory than what I am striving for. By open ethnography I mean very specifically that the process of data collection or production and some of the pre- or semi-analysed data be made available, and made explicit. I hope to achieve a level of accountability akin to the ideal in the natural sciences whereby external observers may link arguments to source data and follow the development of the argument at multiple stages of the analysis. Openness, therefore, has to do with data, and accountability with what anthropologists do with data.

The mistakes and problems of others provide valuable training cases. Anthropologists the world over stumble and falter, so there is no reason to hide what I did. There is a danger that exposure may backfire on the anthropologist, but in the long run analyses are only as good as the data to which they apply; it is therefore in every anthropologist's interest to maintain the highest possible standards (accepting that perfection is non-existent and that all research has flaws). Certainly not all methods are good, but there are a variety of ways one can do fieldwork. Exposure has allowed others to criticize what I am doing both face to face and through e-mail (thanks to the website). I was surprised at the number of comments I received while in the field. Naturally I reserve the right to carry out the final analysis, but the comments showed me other ways of looking at things.

Anthropology thrives on data, regardless of the fact that journal publications limit the amount that can be included in papers. The amount of data that sits and rots in cardboard boxes and filing cabinets is depressing. Few anthropologists find a venue for the mass of the data they have produced during their fieldwork, and they do not have the time to process it all themselves. Publishing some data is problematic, as the data may be of a sensitive nature. Even when the 'sensitivity' level is minimal, however, there are problems using other researchers' field notes. Reading through the late Professor Paul Stirling's field notes on-line (as is possible at http://lucy.ukc.ac.uk/Stirling) one quickly realizes the difficulty of making sense of someone else's idiosyncratic shorthand and sloppy abbreviations. It took me several days to figure out that 'M.' in many of Stirling's notes referred to his wife Margaret, not Mohammed. This abbreviation makes absolute sense if one happens to live with 'M.', but for the rest of us it is confusing.

The Centre for Social Anthropology and Computing at the University of Kent (CSAC) has been developing tools to overcome these problems. The APFT/CSAC Content Codes System (Fischer *et al.* 1996) provides a means of coding the content of field notes to render them more easily searchable and usable by other anthropologists, or indeed anyone interested (see the Appendix for more information on content codes and meta-languages).

On-line field notes that have been content-coded allow users to make enquiries on a wider range of topics than simple keyword searches. They also make the data useful to researchers with radically different agendas. For example, I might ask about the level of violence associated with land disputes. I would then receive a summary report based on the data extracted from my own field notes. If my mem-

ory and my field notes do not come to the same conclusions, it may suggest areas where further research is needed. Someone else might enter a query about symbolic representations of Islam, something that is not pertinent to my thesis, but if I have done a credible job in coding my field notes this may still produce something of use. The idea is not to let the computer do our thinking for us but to use it to help point out areas that need further elaboration and or investigation, and/or provide examples to support or refute work in other places.

Using the internet in the field and publishing data while in the field can produce better data (field notes, preliminary analyses, graphic images, audio recordings, interview transcripts, samples of material generated or produced directly by informants). However, I say this advisedly. A great deal of data is produced in the field, and in order for it to play a role in improving ongoing research it must be organized and managed in standardized, systematic ways. If the goal is then to maximize exposure via the web, then a further set of navigational issues arise. Banks (1994) and Biella (1994) discussed the varying degrees of 'complexity' necessary for a website to avoid it becoming either 'naive' or 'chaotic'. This is an important concern when one thinks of presenting data from the field when demands on researchers' time seem endless. Fine-tuning a website to achieve just the right balance should not be a priority of anthropological field research. Field notes in particular are difficult to manage and use, so they must not only be maintained in internet/world wide web-friendly ways, but also organised quasi-automatically by content. Access must be open enough for outside users to be able to make sense of what they see while protecting informants from undue embarrassment and eliminating any possibility of informants being harmed physically or materially.

In all fairness I should indicate here the amount of time and expertise required to manage field notes in this manner. A template was developed for me to structure and store my field notes. This template was developed using proprietary software, Adobe FrameMaker©, which has the advantage that the application is available for all platforms and the files are cross-platform compatible. This template can be used with moderate training, depending on the level of computer competence of the researcher. The most involved aspect of this task is learning the content codes themselves. As with other coding systems, this comes with practical application rather than studying the codes themselves. The technical training and practice required to incorporate the coding should be minimal for people who are comfortable using software packages with pop-up menus. Maintaining the website remotely requires slightly more knowledge about how to access remote servers. This also means that the researcher must have the correct permissions set on the server that houses the website so that changes can be made. In brief, this part of the job requires someone familiar with use of the internet, not just the web. This is not as onerous or demanding as it might sound, since the software necessary for this, on a Macintosh at any rate, mostly uses a click and drag interface which can be learned relatively easily.

Time management is always an issue, so the organization and dissemination of various field data should be kept as simple as possible. Although coding and organizing for the web does take time, there is a very clear economy of time over organizing field data in more traditional ways. Writing up field notes in places like Pakistan is a question of making use of the little time you are left alone to think with. In my case this was normally done after midnight when everyone else had gone to sleep. At that time of night, after long and increasingly hot days, I was not in a frame of mind to organise my data into sections and subsections: my goal was to get as much on record as possible. I did this as quickly as possible, and had someone told me I needed to maintain separate files or use separate font colours for different types of data it would not have pleased me. Coding can be done later. I tended to add codes in the morning when I was fresh and to do serious writing up in the evening while my scratch notes still meant something to me. Using the search engines, I can now filter through all my notes and create output files that are the equivalent of maintaining separate field-note files or books or catalogue cards. This point may be more assertion than anything else, since I have not used a stopwatch to compare times. In any event the time things take varies according to individuals and conditions; but there is no reason to assume that adding content coding to the routine process of organizing field data will significantly increase the burden of researchers.

Sharing Data: Increased Feedback from Outside the Village

The first thing I did upon arriving in Pakistan was to arrange local internet service. I was therefore in e-mail contact almost immediately. Apart from the emotional comfort of not feeling quite so isolated from friends and family, this connection provided valuable feedback during my research. The majority of e-mails I received cannot be reproduced because I only received permission from a handful of my correspondents. I set up several 'mailing lists' of differing levels of formality. When something humorous or thrilling occurred, I sometimes edited my field-note entry for an e-mail message to people around the world. Without exception I received replies to these messages asking pertinent questions about what I had not said. These comments, embarrassing though they were at times, never failed to indicate to me that, no matter how thorough I might have thought I was being, there was a vast amount of information I was missing. The e-mailed comments and questions did not lead to me 'getting it all', but they helped me get a little bit more. They also, at times, forced me to reassess how I had understood events and to go back to my informants for clarification.

One incident that generated several comments was an interview I conducted which became side-tracked on to the topic of magic in the village. I rarely pursued this topic, but my informant's enthusiasm was contagious. The comments from

anthropologists who specialize in magic and ritual were revealing. I had been told that there was little magic in Islam and that people would be very reticent about discussing it. Furthermore I was not terribly interested in magic or religion, but in politics, power, and agriculture. Consequently I was somewhat unprepared to research ritual magic, when I realized that not only was it not uncommon, but that people were quite open about it if they were alone with me. I give this example only to illustrate how the internet via e-mail may allow researchers more latitude in following what comes up in the field, regardless of what they went into the field 'prepared' to research. There are times when the informant is willing and the researcher is eager, but the right questions, for lack of preparation, just do not present themselves. The internet is not the only way to gain background information while in the field, but in my case it could be done from the bedroom-cum-office.

Internet communication was not restricted to friends and prior acquaintances by any means. An e-mail exchange with a sociologist, who kindly commented on my website, caused me to rethink my village-wide questionnaire. His criticism of how I conducted the questionnaire and what purpose it served helped clarify what I hoped to get out of it. Comments like the sociologist's are sure to arise upon returning to the university setting, but by then it is too late to change the way things are done. In this case I did not end up changing anything, but I had to justify to myself why I stuck to the original plan. The experience forced me to be more rigorous in setting my goals for the questionnaire.

Increased Feedback within the Village

Sharing my data within the village proved extremely fruitful. Villagers were curious about why a gora (a generic term for white men) had come to live in their village for one year. They are used to visitors but not to visitors who stay for such a long time nor to visitors from European universities. Explaining what I was doing and what I was investigating was not easy. In the beginning I tended to tell them what I was researching at that moment (agricultural techniques, Islamic ritual, marriage choice etc.). They then gave me all the information I could cope with on that subject. I tried telling them that I was interested in every aspect of their lives, and then they tried to include me in things they thought were the most important. I found this less satisfying, since what one person thinks is terribly important may be quite boring or insignificant to another.

I had the benefit of my weekly updates and monthly reports to share with those villagers who could read English. They in turn helped to spread the information to others. It seemed to help them understand several things about my presence: (1) I was not a development worker come to hand out large sums of money; (2) I was pretty much interested in everything, but most interested in how landlords manage to control the village; (3) I wrote down more of what they say and do

than they realized. I tried to be quite obvious about writing down what people told me and what they did, but they never failed to be surprised when I showed them my edited notes, updates, and reports. The first reaction was usually to laugh and exclaim something about how in-depth my study was. The only occasion when anyone became upset about anything I included involved my failure to refer to someone as 'my friend'. This was purely unintentional on my part; I had called several people 'my friend', but that particular man I had only referred to by name, and he was genuinely hurt by it. This incident drove home the impossibility of foreseeing all problems. We do the best we can, and then we have to be prepared to accept that we blunder.

Overall, the villagers were very proud to have an anthropologist in their village and very pleased to have a website devoted to them. Understanding more clearly why I was in the village tended to make people more helpful. They understood that I am human and that I got bored and tired of some of the things they did, but that I thoroughly enjoyed my stay. It is very important to almost everyone in the village that guests be happy and enjoy themselves. I confirmed this to them repeatedly, but seeing it in the website somehow made it more real for them. A small number of men took it upon themselves to try and make sure that I got to see everything of importance in the life of a north Punjabi villager, and my notes helped them identify the gaps in my education. Lest I give the wrong impression, this really was a small number of men. Most people were not interested in reading my notes, updates, or reports, and were not very interested in hearing lengthy descriptions of what I was researching. Once I told people that I was studying aspects of their lives, that was enough for them and they changed the subject. Thus I did not magically find myself in a village of amateur anthropologists who had a passion for looking at social organization and relations.

The local man who, I would say, *is* something of an amateur anthropologist and who followed my website the most closely is Malik Amiruddin (I have chosen to retain Malik Amiruddin's name in this paper. He was not a 'subject' as such, and his intellectual contribution to my research was important enough that I feel I owe him the citation). He is not actually a villager but he has a close connection in being married to a woman from the village, although he comes from a landlord family of the same caste in a nearby town. His interest in computers and the web predated my arrival by some time. His first reaction when it all became live was that it seemed very detailed but that all the interesting bits were cut out. He tried to persuade me to let him have access to my complete unedited notes. I avoided doing this, but I have no doubt that he has not forgotten that there may be more scandals hidden in them. He was very helpful in the particular areas that he found the most interesting, namely Gujars and Gujarism, agriculture, and disputes with cousins. When he read a comment on one of these topics that he found skewed or inadequate, I invariably ended up having a long and instructive conversation about it. We spent an evening discussing the history of a neighbouring caste (which is

somewhat disputed). He provided a valuable alternative history. He was always willing to speak, so I could have got these stories from him without the website, but the presence of the web reports made him feel more included in the research and hence a more active informant. Since leaving Pakistan I have continued to rely on Malik Amiruddin as an informant via internet chat services. These services, which in the West seem to be primarily for creating fantasy personas and cyber sex, are an incredible resource. I have been able to continue gathering data in spite of the thousands of kilometres separating me from my informant. There are real drawbacks to this, of course: the internet is not conducive to Arabic script so the conversations, or chats, are necessarily in English, and not everyone is able to write as they speak. Expressing thoughts in writing is a specialized skill, and doing it in 'real time' is something of a challenge for many people—both in the West, and in places like Pakistan.

However, not everyone who read the reports had something to say about them. Sometimes they merely corrected small details ('So-and-so is not 65, he's only 57', etc.). Sometimes they read the first few sentences and then took away the paper copy I gave them to read later. This often meant we never discussed it. In spite of the lack of comment from some people, sharing the reports with those of my informants who could read English was one way to offer them the chance to have a more active input if they chose.

Using Electronic Media for Data Collection: Tools for Feedback

I used the internet in interviews and conversations. I played back videotape taken in the village and other places. I played back audio recordings of stories, songs, and conversations. This allowed me to introduce new things to villagers and observe their reactions, as well as to show them things they are very familiar with and ask them to elaborate on them.

I was curious how people in a farming village in the Punjab would respond to access to the world wide web. Would they be interested in it all? What sorts of topic would they want to search for? How much credibility would they give information gathered from the web? I must admit that the experiment was not entirely satisfactory for various reasons. Initially, there was a great deal of interest because the first website we looked at was the Semi-Arid Sustainable Development Project, which had made this village its pilot village. There are photographs of the village along with some video clips. People enjoyed this immensely, and it remains one of the first things they tell visitors about when speaking about me ('Our village is on the internet. We have one of the most famous villages in the Punjab'). Interest was not restricted to the literate villagers, though most of my web searches were done with literate men (I never did a web search with a woman).

I let this activity slide after the first few weeks because I found I was mostly getting the same requests over and over again from the same people. After people had seen their village on the web, they wanted to search for luxury goods: perfume, cars, jewellery, watches. Then they wanted to see what information was available on illicit sites: alcohol, guns, women. The latter category is tricky because everyone who wanted to do these searches was also adamant that I did not do these kinds of searches with anyone else. In particular I was asked never to search illicit subjects for unmarried men. Unmarried men were deemed too immature and irresponsible to handle the abundance of pornography available on the web. I should add here that no one was very interested in these illicit sites once they saw them. I was unwilling to distribute my credit card number, so what we got was of rather low interest, even to men from a very gender-segregated society. Over the following months I no longer initiated web searches with people (though I continued to show them my own website and others that I thought would be of interest to them). Gradually, men began taking an interest in searching the web again. This was due in part to Pakistani visitors who actively used the web returning from the States. At various times throughout the field research I was asked for specific web searches (watch prices, a specific make and model of car, international news of Benazir Bhutto's conviction). The landlord family, for the most part, found the internet very interesting but showed no interest in being able to navigate around it themselves. Other villagers were very curious, but only for short periods of time. The one topic that stimulated numerous requests for internet information was the Kashmir crisis. Many people in the village do not trust the information they receive from the television news reports, especially as it is often contradicted in the Urdu daily papers. News from *The Times* and other British newspapers was deemed to be significantly more credible than locally available news. I left days before the October coup, but no doubt had I been in the village I would have been inundated with requests for international on-line news coverage.

So while I did not find these web interviews to have been the most productive or valuable use of time in terms of data collection, I found that, at the very least, they provided an excuse for people to come and spend time with me in the very early days. It was an immediate way to share some of what I do with people so they could see how some of the data from my research will be used. I will probably never know if it helped to put them more at ease with me or provided more of a barrier in the beginning. But the web was something from my culture I could share. It is very difficult to represent one's own culture in circumstances like those I was in. It often seems easier and less problematic to simplify and skew descriptions. The web gave my informants an opportunity to see a more first-hand account of the West, also skewed and simplified without a doubt, but not by me.

Audio/Video Recording Playback

Recording events, so far as I can tell, was almost always unproblematic in the village where I worked. I was asked for religious reasons not to photograph a handful of people (a request I respected, though these people were criticized by others for their stand). I avoided photographing or video-taping funerals for personal reasons (I do not enjoy video-tapes of people crying and suffering), but had politely to refuse to do so. I attended several funerals where professional cameramen were brought in to video-tape the event. I asked informants to repeat various common actions and display items with brief explanations of their use (like praying, toba (a kind of religious apology), and the tools of a barber's trade etc.). I recorded these with the intention of using them as aides-memoire, as well as to show them to other informants in order to obtain more than one explanation about these things. I also intend to use a portion of this material on the website as part of ongoing dissemination. I hope that users of the website may have more information on particular things they see.

Audio recordings of songs and stories were useful for several reasons. They provided me with examples of natural language to help me improve my language skills. Although I can easily obtain Urdu language tapes and even eastern Punjabi language tapes, I have yet to come across a Potohari Punjabi language tape. By recording these stories I heard typical phrases and accents that I could then try and imitate to help make myself understood better. These recordings also helped me learn more about such things as the role of shrines and holy men in the area. People came to my room and requested particular stories that they knew I had recorded. Whether they knew the story in advance or not, they enjoyed listening to the stories repeatedly. While we listened I asked them about the stories. One of the questions I frequently asked about stories regarding holy men is whether people literally believed the story. Interestingly, the breakdown of people who believe in the story word for word does not correspond to whether or not someone is literate or educated.

Placing these materials on the web is technically possible, but there are issues of quality versus file size to consider. I see little point in making these materials available via the internet for use in the field. The original tapes or digitized versions on the researcher's computer are far more practical. The most frequent negative comment I have received about my website is that I did not include as much of this material as I could have. In order to contextualize the textual parts of the website, the video and audio recordings are extremely useful. There is also the question of making full use of internet capacities. Large bodies of searchable text are only one feature the internet allows us. It would be foolish not to make use of the internet for video simply because it is bulky and currently impractical for many modem connections. The pace of technological improvement is such that there is every reason to suppose that, within a very short time, acceptable quality video may be made available in small file sizes.

Dangers and Drawbacks to Ongoing Open Ethnography

I am aware, as is my department at the University of Kent, that there are potential risks involved in this work. My data have undergone only very preliminary processing. I have not yet had the time to put my observations and experiences together properly. Things that may potentially embarrass or harm individuals might slip through in the rush to get things prepared and published on the website. I do not believe that these dangers are more real for web publication than for other kinds of publication, and they are more easily corrected in web publications than in hard copy ones. My website is seen by local people. In the village, I showed it to anyone who asked and I pushed others into looking so that they could be my guides. If I inadvertently put something embarrassing or hurtful up, then I wanted to be able to modify or remove it. At this stage I am still trying to be more careful about protecting people's feelings than providing as complete a picture as possible. At a later stage, when it is possible to disguise individuals and villages and hamlets more effectively, I can deal with some of the more sensitive material (though as I said there is not very much of that, given the nature of what I am looking at).

A final danger is that I may have spent too much time preparing and processing data when I should have been collecting and producing more data. I have a simple and a complex answer to this question. The simple one is that I just could not cope with sixteen hours a day collecting and producing data. The more complex one is still not so difficult. The break from acquiring new data proved invaluable to me. Going over notes, videos and audio tapes at the end of each week helped keep me focused on what was most interesting to me. Going back through all my notes from time to time helped remind me of the things I thought were fascinating at one point and later hardly noticed. In the beginning I allowed myself to be guided almost entirely by my hosts and followed their lives as a passive observer/participant. As time became short I controlled it more strictly and focused on things that I saw were missing from my notes. The extra time devoted to making my notes accessible to others has rendered them more accessible to myself as well. For all their superficial 'lightness', the weekly updates helped me anchor events so that I can remember to look for them in my notes when I am ready for that topic. The monthly reports have not proved as useful, since I found them to be far more time-consuming and demanding of greater thought. I got around this quite simply by not doing the analysis that the monthly reports required, but opting for more superficial and consequently less beneficial reports in the hopes that I might be able to use them as prompts for papers in the future.

Conclusion

There is a danger that we allow the paraphernalia of the internet and computers to fool us into thinking that we are being progressive and modernizing ethnography

simply by using them. My experience with these tools is that they may be used in very old-fashioned and traditional ways (which are not all bad: I do not in any way mean to imply they should be abandoned altogether). The internet and information technology allowed me to do something with ethnography which I believe nudges the limits of field research. The ambition of openness and transparency is no stranger to social scientists and is absolutely crucial to other branches of science, but using the internet and IT as I and others at Kent have been doing renders the desire for open ethnography feasible in a way that really did not exist before. Ethnographers may increasingly choose to expose the process of fieldwork for the benefit of their subjects, their colleagues, and themselves. Where there are valid reasons for concealment, then obviously open ethnography is inappropriate, but ethnographer embarrassment is probably not a valid reason. Ethnographers should do the best research possible, and when the cracks are revealed, this makes it possible for them to become better ethnographers. Moreover, access to other people's source data may prove to be an invaluable resource for future ethnographers, in the same way that colonial diaries and administrative reports are for us today. We may end up providing windows on to the past which reveal far more than we imagine. The technical problems in using IT in the field are rapidly becoming a thing of the past. In 1982 and 1983, when Michael Fischer dragged his computers to the field in Pakistan, he had several suitcases and had to deal with frequent losses of data due to power cuts and surges. When I did my fieldwork I had several times the computer performance he had and everything fitted into my carry-on luggage, including laptops with their own uninterrupted power supply. By the time I receive my doctorate and hopefully get a permanent job, I expect the situation to have improved yet again. Computers become easier and more user-friendly with every system upgrade. The internet is expanding rapidly into 'underdeveloped' nations. I expect that in a very short time the technical objections to using IT in the field will be completely untenable. At that point the consideration may be a serious weighing-up of the analytical and theoretical benefits versus the drawbacks.

In this paper I have attempted to discuss some of the benefits of employing IT to make ethnography more open. I do not claim that openness was necessarily easy or natural for me, nor do I pretend that it was an automatic process that gave me more free time. Coding my notes, preparing web documents, enticing informants into looking at the web and commenting on all this were all time-consuming tasks. In spite of the added headache and the intrusion into what many anthropologists seem to consider an almost 'sacred' time, however, I have no regrets at choosing to disseminate the information while still in the field. The potential for putting myself or others at risk did not materialize while I was in the field (nor has it since I returned), and the benefits of the added input contributed enormously to my ability to integrate myself into the village and to move in the directions that were of most interest to me.

APPENDIX

Mark-up Languages and Coding Field Notes

In order to incorporate content codes over the internet, I have made use of the emerging XML (Extensible Mark-up Language) standard. XML is a restricted version of SGML (Standard Generalised Mark-up Language) designed to be web-compatible. While current web browsers mostly do not support XML directly, conversion from XML to HTML is relatively straightforward (see Walsh 1998).

Mark-up languages insert the meta information which allows computers to process data. Thus when we enter italics into a text we are inserting a meta tag to the computer which tells it that all text inside the tags should slant. We can use the same principle for 'tagging' content. If a passage in our field notes is specifically about a religious ritual, then we can insert the meta tags for religion and ritual. If we stop there then we are roughly at the same usability as with keyword searches. Content meta tags or codes allow us to go beyond that and insert meta information which is not explicitly stated in the text. For example, a religious ritual may be closely linked to a specific power struggle between individuals or factions. It may equally be an expression of economic interests. The ritual may reflect a temporal shift from the traditional ways in which the ritual was performed, but that may be of secondary importance. If we are rigorous in tagging or coding notes, then they begin to form a multi-user data set rather than a single-user nightmare.

The following field note has been content-coded. This is an abstract of a note describing some semi-formal interviews conducted in the tea shop and the barber shop about help from landlords.

Abstract:

{T:Thread DocProj: {{K:EthnoInt:GoodEx: {{L:MetaCon:Behav:intervu {{M:Agent:Grp: {{N:Prep:down: {{O:Role:Care:low {{H:Jur:Prot: {D:Soc:Status: [Down at the hotel and barbershop conducting some semi-formal interviews about when and why people go to zamindars for help. Most people do go to zamindars (sometimes indirectly through the elder members of their family) for everything from food to broken tractors to ill children to enemies who want to beat them up. Not all zamindars help people. Heads of households seem to take this role more seriously. People from outside Bhalot reported that they went to Bhaloti Maliks before their own village zamindars. There were logical reasons for this (neighbouring land, they do most of their work for Bhaloti Maliks, their dhok is closer to Bhalot than the official village it is attached to),]}}}}}}}

{T:Thread DocProj:
I had three major strands to my research. The first was my thesis. I created a Thread called DocProj (Doctoral Project) which could label all notes directly concerned with my thesis. I also had a Thread to identify notes related to Ethnicity, and a Thread to identify notes on Development.

{K:EthnoInt:GoodEx:
Ethnographic Intent (EthnoInt) is a kind of meta-meta tag. It helps isolate ethnographic incidents on the basis of their use-value to me. In this case the incidents provide me with good examples of particular types of behaviour.

{L:MetaCon:Behav:intervu
Meta Context (MetaCon) allows me to extract notes based on the conditions in which the incident occurred. It functions best in coordination with the Ethnographic Intent term. So here, using these two terms together, I know that this note provides good examples of behaviour as described in interviews. This helps me evaluate the strength of my data by maintaining a record of whether the behaviour examples were observed, came up spontaneously in conversation or may have been prompted by me.

{M:Agent:Grp:
Content Codes allow the ethnographer to make a distinction between Agents and Patients. This is somewhat arbitrary as it depends on the emphasis the ethnographer chooses. I began coding my notes by trying to make Agents doers of action and Patients receivers of action. Sometimes it is as straightforward as that, while at other times this is simply inadequate. Receivers of action may have played an important and active role in ensuring that they would receive the action. In this case I chose only to use the Agent term and indicate that this note concerns Group (Grp) action. Since this note concerns behaviours displayed by members of two different groups, the individuals who actually perform the action are acting within the constraints of behaviours deemed appropriate for their group.

{O:Role:Care:low
This term allows ethnographers to make propositions. The Role Attribute term and the Agents and Patients terms is what makes Content Codes fundamentally different from the HRAF files or keyword searches. Processes may be described using meta language rather than individual traits. Here I have used the role Care. One group of people in the village Cares for the other. Here this is meant very literally to look after and provide for rather than any emotional or affectionate role.

{H:Jur:Prot:
The Jural (Jur) term is used here because one of the behaviours associated with the landlord group is protecting the lower status group from the outside (police, other landlords etc.).

{D:Soc:Status:
Finally, I used the Society term Status. The relationship between landlords and non-landlords is very hierarchical in the village. This field note provides some examples of Status differences.

REFERENCES

BANKS, MARCUS 1994. 'Interactive Multimedia and Anthropology: A Sceptical View', Oxford: Institute of Social and Cultural Anthropology (Documents on Anthropological Multimedia).
http://rsl.ox.ac.uk/isca/marcus.banks.01.html

BARLEY, NIGEL. 1983. *The Innocent Anthropologist,* Harmondsworth: Penguin.

BIELLA, P. 1994. 'Codifications of Ethnography: Linear and Nonlinear: A Response to Banks', Oxford: Institute of Social and Cultural Anthropology (Documents on Anthropological Multimedia).
http://web.usc.edu/dept/elab/welcome/codifications.html

BOWEN, E. S. 1956. *Return to Laughter,* London: Union and Victor Gollancz.

FISCHER, M., OLIVER KORTENDICK, and DAVID ZEITLYN 1996. *The APFT Content Code System*, Canterbury: CSAC Monographs.

READ, D. W. 1990. 'The Utility of Mathematical Constructs in Building Archaeological Theory', in A. Voorips (ed.), *Studies in Modern Archaeology: Mathematics and Information Science in Archaeology—A Flexible Framework,* Vol. III, pp. 29–60.

WALSH, N. 1998. 'What is XML?'
XML.com.http://web.xml.com/pub/98/10/guide1.html

WATSON, C. W. (ed.) 1999. *Being There: Fieldwork in Anthropology* (Anthropology, Culture and Society), London: Pluto Press.