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What Can an Ethnography of Information Giving by Telephone Tell Us For Designing a Website?

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Ethnographic evidence has proved invaluable in understanding how people work and communicate with and through technology. We have undertaken a study of a Mental Health Information Service that provides information and a listening ear over the telephone. The ethnographic data gives us insight into operator work and how to better support that work. It is not the operators' task to relay information over the telephone but to deal with callers in accordance with their needs, to work with (and around) confidentiality, to reassure the callers, to (help) formulate the callers' problems, to draw from prior experience, to signpost, to do the organisation's work, and simply to be there. An aim of the Service is to put information online. In this paper we ask how far ethnographic evidence of the workplace can be used in supporting design of a website.

Introduction

When we undertook fieldwork at a mental health information service as part of a project on information giving in healthcare, we were surprised to find that this service did not have a website. We were planning to do some technology work for this service and so the very first thing we undertook was to prototype a website; an obvious contribution, or so we thought at the time. Our research interest in the Service is to investigate the everyday 'doing' of information work and the appropriateness of technology to this doing. Whilst getting on with prototyping a website, our ethnographic observations of work began to trouble us. Firstly, callers were not ringing up for information but more likely some sort of chat. Secondly, the social and economic circumstances of many callers were such that they often did not have easy access to a telephone, let alone the internet.

Ethnographic evidence can be very useful to systems designers [1, 2], it giving rich information about how work is achieved. Our study was set up to get insights into information giving work

and into designing technologies to support this work. For example we were interested in software support for telephone operators. A website is an problematic technology in this respect as it would displace the information from the hands of the expert information workers to the service user. Our evidence is therefore limited, and we seek to work out what it is that is useful to know about phone operator work when considering website design. Our work cannot tell us how to design a website but does give us some sort of insight into how a website might be useful. For example, one might expect a website to reproduce somehow the normal workings of the organisation. We are also in a position to be able to consider what it is that would be lost by 'cutting out' the operator. It is the purpose of this paper to tease out how ethnographic evidence on information giving work is useful to website design. We do not pretend to offer all the answers for such a design but do propose that such evidence is useful.

Fieldwork at a mental health information service

The Service (as we shall refer to it) is run by trained volunteers and managed by two full time staff who administer the work and update information. It provides a freephone number and holds details of statutory and voluntary services on its database, and a large quantity of printed literature that can be forwarded to callers on request. The process of locating appropriate support services for mental health patients is often a complex one. The role of the Service is ostensibly to simply identify the appropriate support services for each caller. Many of the patients are referred to one or more voluntary services that provide a diversity of services and often the initial problem is finding a service to match the patient's needs. Team members choreograph a number of resources for this purpose, including leaflets collected from various services, information printed out from the Internet, information provided on an ad hoc basis by healthcare professionals and information and flyers posted on notice boards. The Service logs call information that is used to provide detailed reports of mental health issues in the area. The Service has been successful, administrators and volunteers work hard with limited resources, and while it has expanded the geographic area it covers, it has also had to limit access because calls have been coming from all over the UK.

We have undertaken an ethnomethodologically informed ethnographic study of operator work at the Service. This is to build upon previous ethnomethodological studies of telephone work, whereby the 'routine' nature of this work is seen to be achieved socially through coordination, negotiation and a choreographing of resources in the operator's work (particularly in talk) [3][4][5]. Our interest is in using ethnomethodology to support system design. In projects such

as the one discussed here, a key feature when integrating ethnography and systems design is the notion of 'co-realisation' [6] that the designer introduces, observes and adapts technologies over time; as opposed to the normative model of sticking a new system in and running away.

Information 'technologies', are often paper based in UK health care, and the Service is no exception. Much of the information they hold is printed literature, in leaflets or books. A large desk diary is used in the coordination of work. Volunteers leave messages about issues that have arisen for other volunteers or managers to read. Scraps of paper also come in handy to jot down notes and addresses during a call, or simply to doodle on to relieve tedium. Most importantly there are the telephones. There are also two, very old, computers. These computers were probably old ten years ago when the Service started; they are green screen, text based, non network machines with no mouse. These computers run a basic database through which the operators can access information about services through a hierarchy of menus.

The Service has purchased software to run a new database and a new operator interface on modern PCs. However the Service has had to wait a great deal of time for these PCs to be provided and is now waiting for them to be attached to the network. The Service envisages future expansion to provide information for both service users and providers. Providers such as GPs increasingly have to provide their patients with choices about services, and the information held by the Service will be useful for that purpose. With the modernisation of the Service infrastructure, provision of a website beyond a basic page advertising a phone number would be possible. Primarily, the database which is accessed by the operators could be accessed via the web. Users could be given some way of searching and accessing all or part of the information that is held on the Service's database. Users could be those who would currently be expected to call, or could be a service provider such as a GP. In addition to presenting information in this way it would be possible to offer some sort of text chat, either a chat-room or chat with operators by way of emails. Technologically speaking, this might involve a fair amount of work to set up, but none of it would be particularly difficult and it would largely involve implementing and extending existing and widely available software. technologically problematic, but organisationally a number of issues are raised. A website would put users into direct contact with the system, radically altering its position. It is by way of our ethnography that we wish to tease out some of these issues.

What does this fieldwork tell us, and what does it have to do with websites?

Ironically just about the only evidence from the fieldwork concerning internet use is a transcript of a call from a woman whose husband had recently threatened her with a knife because "she spent too much time online". Violence and distress are all too common themes in calls to the service. So too is poverty, and a commonly used question from operators is "are you calling from home?" This is a good question to ask, answers can be revealing; some callers do not have a home (just a hostel, refuge or a friend's house); some callers do not own a telephone; for others and for a variety of reasons, calling a mental health service from home is not an option. From this evidence, the number of callers who would benefit from a website seems minimal. However we are also aware that the service is hitting a particular socio-economic population and therefore suggest that the website might be designed for those other than the callers they have at present. We do not abandon our data because it is on handling calls from 'the wrong sorts of people'. It is not the callers' specific 'problems' that are at issue here, but the workers' specific methods. We believe these methods, and associated features of work, remain relevant no matter who the user. We will discuss these under eight categories: first timers and regulars; working with confidentiality; reassuring callers; formulating the problem; drawing from experience; signposting; doing the organisations work; and, being there.

First Timers and Regulars

First time callers looking for information are few and far between at the Service. One of the primary tasks of the Service is to put callers onto other organisations who are able to give specialised advice or support, and so, callers who are looking for information often call once and once only (although we do note that a measure of success used by the Service is volume of calls). It is these people who are looking for information, perhaps a list of services, a number or an explanation of an issue that one imagines a website presenting the information held by the Service being of most benefit to. Regular callers make up the majority of users of the Service. Regulars are, generally, lonely people looking for a chat, rather than people looking for information. Regulars have generally heard all the information there is to be given to do with their predicament, although sometimes they may be reminded of things by operators, and sometimes their situation may change, meaning they would benefit from finding something new.

The call transcript in the appendix is from a first time caller; the operator believes she can find relevant information for her. It is usual for operators to ask callers whether it is the first time

they have rung. The operator reads out information from the database and from pamphlets and offers to mail information to the caller. On the face of it, this appears to be a successful 'information giving' session. However, the comment made to us after the call puts it under a new light. The operator says the caller is letting off steam. The information giving has been a means, not of gaining new information, but of engaging in a conversation.

Therefore, we must question the benefit of an information website. Even when a caller is, on the face of it, looking for information, it is not always the case that it is simply the information that they want.

Working With Confidentiality

The Information Service has some problematic and sometimes conflicting requirements to do with confidentiality. Information systems in healthcare often rigidly apply rules that were previously more fluid and this can be observed at the Service. The Service may not keep (computerised) records that identify callers, and may not link together records that relate to the same caller. However notes kept in the diary sometimes do identify callers and link calls, and the talk between operators often does. Also, in order to mail material out, the Service must gain (but does not keep) the caller's address. The Service also uses caller display, primarily to screen calls for people ringing from outside the appropriate area. A serious conflict comes with suicide calls where the Service breaches its confidentiality with the caller by informing emergency services of the caller's telephone number and details. The operators do not tell callers they are breaching this confidentiality but use strategies to get the caller to state the information the operator already knows.

In the example we see the operator asking whether it is the first time the caller has rung. This strategy is a way of getting the caller to state information without the operator breaking the rules on confidentiality. Operators in-fact use this question for regular callers to admit they are regular and to allow the operator to refer back to previous conversations with them. The operator also asks the caller a question about location: "are you living on your own?". Location question such as this are often used to get callers to reveal useful details of location (although it is usually already known via the display).

We have been told by the Service that there is no way that we would be able to provide any sort of login or user profile for people who wanted to use the website. This would mean that a search query could not be saved and that someone who had called the service would not be able

to log in to get a personalised version of the relevant information. It would also make email or chat problematic. The ambiguities and work-arounds currently utilised by the Service would not be possible with a web based system, and issues to do with confidentiality would present the organisation with a significant problem to address. The rules that are worked with fluidly by the operation would become rigid in an information system.

Reassuring Callers

Operators work to reassure callers, often at both the beginning and the end of calls that the caller's 'concern' is valid and that they are not wasting the time of the service. This reassurance is not so demonstrable in the example, possibly because it has been an information call. An invitation to call back is given at the end of the example, and this invitation is often given in conjunction with a reassurance that the caller has not been wasting anyone's time.

We are not certain that visitors to a website would need reassuring because they are not taking up an individual's time in the same way as does a telephone conversation. However, callers are reassured about the validity of their problem no matter what the topic, and we suspect that visitors to an information website might find that the information they are looking for is not there and may think their personal problem is irrelevant to the Information Service.

Formulating the Problem

Operators work to get the caller to elucidate the problem, to find issues that they might be able to help with and to find information that is of benefit. Callers will usually have some candidate ideas about what the Service can help with, but the actual problem arrived at as part of talk in the call [3][7]. In the example, the operator prompts for "information about what we might do to help you", which is an invitation to keep talking until the operator is able to pick up on something she can help with. In the example the operator picks up on self harm, despite it not being the problem initially presented by the caller. Later, the operator turns the topic to depression.

Formulating the problem is a very interesting issue for information websites. Most, if not all callers do not ask a straightforward question; most if not all do not know what it is they need to ask. This can be for a variety of reasons. Firstly, callers might not know what the service can actually provide, and therefore do not know how to formulate a question. Users of an information website might get around this by formulating different queries or searching different avenues until they are satisfied, although there is no guarantee they will do this

effectively. Secondly callers may not wish to be labelled. One example was of a caller who wanted information on hearing voices but would not accept the label schizophrenia (which was the category under which information on hearing voices was kept). On a website users may chose not to navigate to certain categories for various reasons including stigma. Thirdly callers may not have a way of labelling what is wrong, and need the Service to find the right category. Fourthly, and this is most frequent, callers just talk until the operator finds information that is relevant to something they are talking about. In the example, the operator actively chooses the relevant topics.

Drawing from Experience

Much of the information given is drawn directly from an operator's own experience. This may be where a chain store is located, what sort of dogs are the friendliest or how to deal with an alcoholic spouse. There is not a hope of the database covering every subject. Operators also use their own experience in selecting the useful information from the database. They know where to find particular information, under which categories. Moreover they often know which the better charities are, the better refuges, the better information pamphlets. In the example the operator has a good knowledge through her work of the benefits system, and brings this knowledge into the conversation. A website in cutting out the personal attention of an operator to an individual would cut out this experience.

Signposting

Information giving work is often about 'signposting', that is, passing callers on to other services. It is, officially, the aim of the information service to put callers onto other services, and for first time callers this is often achieved. In the example the caller is given the details of a number of organisations, although it is perhaps with a hint of irony that the operator says the CAB has an awful lot of information. For regular callers, other telephone numbers are often given as part of a strategy to get rid of callers. This signposting is a method for bringing calls to a close, and it is noticeable that operators do not themselves end the calls, but try to bring the caller to end it.

Doing the Organisation's Work

Operators must 'do the organisation's work' [3] by generating data about callers. This entails playing into conversation questions that the organisation wishes to know (and to have recorded on the call log). In the example the question "is that how you found the telephone number of this" is a case of this. Operators are also required to use the language of the organisation when

recording call data. It is interesting that the example call is summarised using terms from the database "self harm", "advocacy" and "family health". The first two terms at least are those chosen by the operator as the topic of the call. Even when calls have not involved use of the database, the operator is still required to summarise the call using the key terms from the database, thus perpetuating its categories.

One could imagine categories being recorded by a website, but if users were interrogating the database how would we know if the category related to the users needs? Removing the ability of the operator to translate the needs of the user to the purposes of the organisation actually removes the possibility altogether.

Being There

Operators speak to callers one at a time. Operators work in shifts, and usually work only four hours a week owing to the difficulty (and often the inconvenience) of this work. Operator work is emotional labour, sometimes gruellingly so. Operators must remain positive and helpful dealing with people who can live in distressing circumstances. Callers who might be seen as uncooperative or abusive by other helplines must be taken seriously by the Service, it being a mental health service. Operators will, once in a while, receive a suicide call.

With a web system, the one to one work of the call operator and user would be dismantled in favour of new forms of labour. There is already an administrator of the database, and so one could imagine this role being expanded to administrator of a website. However the use of email or chat would severely disrupt the linear one to one person at a time contact. Particularly, users who are able to tell if the telephone-line is busy (by the engaged tone) will have no such marker of busyness with email.

Conclusion

Our work in no way offers a method for designing a website. It is more concerned with the organisational issues that are brought with the introduction of such a technology. Despite our initial surprise at there being no website for this organisation, we now believe it is not necessarily a bad thing. Many of our findings about information giving work point to the limitations rather than potentials for technology to support it. Certainly, we believe that the operator is crucial to the doing of information work. It is not the operators' task to relay information over the telephone but to deal with callers in accordance with their needs, to work

with (and around) confidentiality, to reassure the callers, to (help) formulate the problem, to draw from their prior experience, to signpost, to do the organisations work, and simply to be there. A website would of course offer something different to the current phone service, but we believe that it would not be many orders removed.

An information website could feasibly present all the information that is available to the operator directly to the user, but in this paper we have questioned whether this would be valuable. For the majority of users, this information would not meet their needs as it is a chat they are looking for, or information or advice that is drawn from an operator's experience. The information may also not be useful to the user as they may not be able to formulate their problem in terms of the answers the system can give, or they may not understand the categories used. If the user were a GP acting as intermediary for a patient similar problems may persist and it is possible that training would be necessary. The use of email or text chat would raise problems in terms of the organisation of work (of being there) which is currently organised around an order of service afforded by the telephone. Any website would encounter problems to do with confidentiality. It is also possible that a website would be bad for the organisation. The organisation would have difficulty generating the kinds of data it currently requires from phone operators.

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Appendix - Example Call

This example is of a call made by a woman whose baby had been taken into care. The call itself lasted 51 minutes, and is not reproduced in full here. Reflecting that we are not tape recording dialogue, and listening only to the operator and not the caller, the example is not given verbatim. We give the operator's talk and use '...' to denote talk by the caller. This specific example has been chosen as it demonstrates a range of listening and information giving practices, which do not feature together in all calls, particularly those from regular callers. This call is from a new caller, and so features a range of activities.

Hello, Helpline ...

After greeting the caller, the operator establishing that this is a new caller:

Is this the first time you've rung? ...

and continues with establishing how the caller might be helped:

Can you give me some more information about what we might do to help you? ...

There is now a two or minute conversation about the woman's baby being taken into care, during which time the operator also tries to establish information about the woman's circumstances:

How old was the baby? ... Are your other children with you? ... Do you see them? ... Are you living on your own? ... How often do you see your health visitor? ... Have you got any friends? ... Why did you move to [this area]? ... Do you visit the baby regularly? ...

At this point the operator starts to look up information, not about care, but about self-harm. The conversation continues:

Do you see your doctor? ...It's hard when you get involved with social services ... What kind of benefits are you on? ... Its income support isn't it. You really need someone to advise you with this. ...

The operator then asserts

I've got information on self harm. I've just brought the information up on my screen. ...

The operator then reads the caller some information about Bristol Crisis (a national service for women who self harm), including the telephone number. The operator then says

I was wondering if there is anything in [your area].

She then silently reads some details about the National Self Harm Network

I'm just reading something off the screen... no ... this is [another City].

The operator then goes to the filing cabinets and removes the Self Harm folder. She leafs through,

Hello... I've got a leaflet on Understanding Self Harm. Now, we could send that to you. ...

The operator continues to leaf through, she pulls out a leaflet Advice for Friends and Family, puts it back and continues to leaf through. She does this with another leaflet, while asking

What's happening with the baby at the moment? ... They haven't said they'll put her up for adoption yet? ...

The operator takes out a leaflet Minimising the Damage from Self Harm and puts it by the phone. The operator continues talking

Have you told them that he's violent? ... You were in a hostel? ... A refuge ...

and then establishes

Is that how you found the telephone number of this? ...

The conversation continues, the operator is now not looking through the leaflets or at the computer

And you don't know people ... You say you have mental health problems? ... depression ... Do you think you've a lack of support? ...

The operator then starts going through the A-Z menu on the computer.

I'm just wondering if Advocacy can help you at all. ... You could ring numbers ... are you on the phone in your flat? ... Do you have a phone? ... I'm just wondering if Advocacy. I don't know. I've just brought up advocacy on screen ... It could be that the C.A.B. could, you know ... this is not just to do with mental health.

The operator then starts going through other advocacy organisations on the computer,

That's not the one, that's for homeless ... I'm just looking through ...I'll go back. This is the C.A.B. in [nearby city]. Have you actually been in touch with them? ... They have an awful lot of information.

The call is ended with

and if you want anyone to talk to ... we are open 7-11

When this call ends the operator takes the phone off the hook, checks it, and comments to me "The caller has got all the support she needs. She is embroiled in it all, social services etc.. She is probably trying to let off some steam." Adding "you only get to hear their side of the story". This comment is cynical, made after a long a difficult conversation with a distressed woman with mental health difficulties. The operator has acted as an intermediary in this call by both listening to and questioning the caller and attempting to categorise problems so that relevant information or organisations can be found. The operator has also provided a service simply by allowing the caller to talk through her difficulties and let off some steam. The operator makes a log of the call, that differs from the comment: The date and time are registered automatically; The operator then guesses the caller's age to be 35 and records where the caller found out about The Helpline; The call 'subject' is recorded from a list of standard terms as 1: Self Harm, 2: advocacy, 3: family health; The 'actions taken' are recorded from a list of standard terms as 1: Information Call, 2: Information to be Posted, 3: Listening Call; The call is summarised as

"Caller has had __ children taken into care. She had a baby in __ who has also been taken in to care because she has just started to self harm although she had a history of this previously. She has recently moved from __ to live near her __ who she says is not very supportive. Her main concern is that she does not self harm again because this would have a very adverse effect on her chances of her keeping the baby. Information sent and addresses given so that she may be able to ensure that she has all they support from this distressing set of circumstances". The operator must also log the call on a paper list, as is common in the NHS. The two leaflets to be sent are paper-clipped to an A4 sheet of paper with the caller's address written on, and are placed in an in-tray. The folders are put back in drawer and the phone put back on the hook.