

Beyond Technical Documentation: Users Helping Each Other

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In this paper I will reflect on what users will expect from 'customer support' in the near future. To this end I will not only look at relevant literature but also reflect on the content of some current customer support sites on the Internet. In particular I will focus on two expectations. Firstly, users will expect tailored information. They want a straight answer to their individual questions and needs. As opposed to 'documentation', the helpdesk might well be a better metaphor for technical communication in the future. And, secondly, users will expect communication rather than documentation. As opposed to 'documentation', dialogue would seem to be a better metaphor for technical communication in the future.

A communication mode that seems to meet these expectations are internet- or intranet-based user forums. Many users of advanced software systems prefer to address their questions to user forums rather than to search for answers in the documentation. Not surprisingly, many companies host user forums on their customer support websites. But how well do these forums meet users' needs and expectations? A preliminary study of user forums suggests that they indeed cater to the needs for tailored information and dialogue.

Keywords: tailored information, customer support, user forums

In the past decades, technical communication specialists have fine-tuned their profession to a true speciality. We know how to deliver sophisticated, high quality user documentation, how to use clear language and outstanding graphics. We know how to give concise instructions and provide access to large digital databases of useful information. However, good documentation does not seem to be the only way for customers to solve their problems through technical devices or software. Many companies set up *help desks* to which customers can put their questions and problems by telephone or e-mail, many users nevertheless prefer to place their queries on a

discussion list or a *user forum* on the Internet rather than searching for a solution in the plethora of online technical documentation.

From Distributive to Responsive Information

Consumers are becoming increasingly selective in their processing of information. They want tailor-made information: quick and easy answers to their individual questions. Hence the customer support of many organizations is changing from *distributive* to *responsive*, from sender-driven to audience-driven, from *push* to *pull*. Instead of general information for a large audience, organizations have to provide specific information to individuals.

The following social processes are important driving forces behind this change in communication needs and policy:

- *Individualization*. With human beings being guided more and more by individual beliefs, values and needs, so too are they becoming more critical and self-conscious. This affects their information needs. They are not interested in general information, but only in the information that is directly relevant to them. They want tailor-made information. This means that organizations have to know their (individual) clients and their needs if they want to communicate with them successfully.
- *Information overload*. The immense amount of information at people's disposal results in a highly selective inspection of messages, i.e. they screen incoming information. Personal usefulness ("This will help me"), positive associations with the source ("I like them – I can expect something from them") and entertaining value ("This is hot") seem to be the most important selection criteria.
- *24-hour economy*. As a result of the continuous activity and dynamics in our society, the fixed rhythm of day and night, working week and weekend, is disappearing. This demands stronger requirements with regard to time and speed of information.
- *Information and communication technology*. ICT makes it possible to provide information more quickly and tailor-made than before. People are becoming accustomed to interactive and individualized forms of communication.
- *Aversion to reading*. Younger generations are growing up in a highly audio-visual culture, as opposed to a traditional culture of literacy. Organizations, however, still communicate mainly by means of the printed media (brochures, magazines, manuals).
- *Changing views on commercial products*. Clients regard themselves not only as buyers of *products* or *goods* but more and more as buyers of *service*, and even of *good experiences*.

These social developments mean that distributing undifferentiated (i.e. unaddressed) information is becoming less meaningful. The new strategy for external information seems to be: answering questions. The paramount characteristics of responsive communication are:

- The initiative and the responsibility for the communication shifts from organizations to their public. It is now the public's needs and questions that form the starting point of the communication process, not the organization's.
- The content of the information has to be tailor-made: individual questions from the public have to be answered with individualized information, not with general policies or rules.

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- Information has to be available at any time and via a multitude of channels.

Software companies traditionally supported users with (printed) manuals, reference guides and tutorials, and later with online documentation. Nowadays, more and more companies have web-based support centers that offer a wide variety of support, much of which is tailor-made. Adobe's customer support website (www.adobe.com/support/), for example, provides:

- Support by product: product-specific resources such as a searchable knowledgebase, tutorials and training information, downloadable files, and user forums.
- Training materials: self-paced online lessons, books, videos, certified training providers, events, and seminars that will help you get the most from your Adobe products.
- User-to-user forums where users can share their Adobe product questions and experiences with other Adobe users.
- A support marketplace where users can submit technical questions online to be answered by a certified, experienced support provider. Users pay a per-incident fee after the request is resolved to their satisfaction.
- Support announcements per e-mail: the latest news from the Adobe user forums community, announcements about the latest technical how-tos, patches, and plug-ins for Adobe products.
- A dialogue-based support tool, where the user can click the questions and topics on which information is required.
- The expert center with in-depth instructional content, expert tips, free downloadable goodies, and useful links.
- Telephone numbers for technical support, the possibility to download products and plug-ins, etc. etc.

This variety of support service enables the user to search for information in the way that suits him/her best, given one's individual needs and preferences. Especially the user-to-user forums and the support marketplace can be seen as excellent examples of a "responsive" approach of communication between Adobe and its users.

User Forums as a Medium for Tailored Information

Electronic discussion groups are among the most popular services of the Internet. In this paper I will use the term *user forum* to refer to groups that addresses users of software or technical products. User forums may be initiated by users themselves (such as usenet groups) or by companies that host them on their websites (e.g. Adobe).

As compared to other potential information sources, user forums have several advantages to individual users:

- User forums can help to solve problems that are not dealt with in user documentation, in particular idiosyncratic problems that have to do with compatibility of data in different programs, specific applications and special uses of software.
- User forums enable users to formulate their problems and questions 'in their own words', and thus to sidestep the burden of finding the right keywords needed to find the relevant

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information. Finding the right keywords is one of the main obstacles when using technical documentation (Steehouder 1994; Van der Meij 1996).

- User forums can provide tailored information: solutions that are geared to the particular needs and circumstances of the help-seeker.

Besides these *functional* advantages of information from user groups, there are also several *social* advantages. An obvious one is that they enlarge the number of potential sources of useful information. People who are seeking advice usually prefer to ask for it from friends or colleagues; people with whom they have a *strong tie relationship*. On the other hand, asking strangers a question (*weak tie relationships*), as in a user forum, has some important advantages (Constant, Sproull, & Kiesler, 1996):

- Weak ties comprise *more numerous* potential helpers than strong ties do, simply because the circle is much bigger.
- Weak ties comprise *more diverse* potential helpers than strong ties do. Strong tie relationships occur between people with the same background and knowledge, so the answer to difficult questions is more likely to be found outside the circle than within.
- Weak ties give access to people with *more expertise* or with more resources, and hence they will elicit more useful information.

Research by Constant et.al (1996) suggests that the lastmentioned advantage may be the most important.

Cross, Rice & Parker (2001; 440) argue that the benefits of information from other people may outweigh the actual technical information. From interviews with managers, they conclude that five categories of information benefits are recognized by information-seekers in users groups:

- *Solutions (know what and know how)*. “People can turn to other people and get specific information to answers that address questions or problems. Such information tends to be either declarative (know what) or procedural (know how) and allows seekers to solve a given problem.”
- *Meta-knowledge (pointers to databases or other people)*. “In addition to obtaining solutions, people often turn to others and learn about the location of relevant information. Such information might be housed in inanimate sources or held by other people, but learning of the location of relevant information increases the efficiency of problem solving.”
- *Problem reformulation..* “Often people turn to others for information and engage in interactions that lead them to think differently about their problem. Such interactions help seekers of information consider important dimensions of a problem or future consequences of a problem.”
- *Validation of plans or solutions*. “Sometimes people turn to other people and receive no additional information but value the interaction because their own solutions or plans have been validated. Such interactions allow seekers of information to more confidently and effectively introduce their solution to others.”
- *Legitimation from contact with a respected person*. “Sometimes people turn to other people for information and benefit by virtue of being able to tell others that they consulted that

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person. The ability to cite a respected source as having reviewed a solution can create credibility outside of the objective quality of one's ideas."

Of course, some *disadvantages* of user forums have to be taken into account too:

- Questions may remain unanswered if none of the participants in the user group is willing to respond.
- It may take a long time before questions are answered.
- It may be difficult to assess the expertise and the reliability of the advice given. Often, the help-seeker does not know the help-provider or may receive different, even conflicting recommendations.
- Apart from the content, the formulation of the advice might be poor or dysfunctional. Usually, participants in user forums are not professional technical writers.

Since the quality of user forums as information sources depends heavily on the information-providers, it is important to understand why and how these people react to the problems and questions of others. Why do people spend time and effort in answering questions and helping people who are complete strangers to them? McLure Wacko & Faraj (2000) sent open-ended questions to 342 participants in three technical on-line communities, asking why they participated in them. A content analysis of the answers brought three main categories of motives to light:

- *Personal advantages* appeared to be the most important; they included tangible returns, useful information, answers to specific questions, enjoyment and learning experiences.
- *Belonging to and interacting with a community*, however, turned out to be of almost equal importance. Motives included knowledge of multiple viewpoints, participating in a peer group, reciprocity, and advantage to the community.
- Only 16.7% of the comments were unfavorable about participation in user groups. They included having had enough of 'always the same discussions', lack of time, and (only) 3,5% of the information in the newsgroup being unhelpful.

The aspect of *belonging to a community* seems to be very important for more than social reasons. Research by Cross, Rice and Parker (2001) suggests that the interests of an organization is the most important motive for participants in help groups to provide information to strangers. The more user groups are experienced as a 'community' or an 'organization', the more likely it is that help-seekers will get useful reactions from help-providers.

An Exploration of Conversation in User Forums

Studies of user forums are quite rare, and most of them have been carried out in closed groups (only accessible to employees of a company or members of an organization). Moreover, most of the research has used questionnaires to investigate the experiences, motives and satisfaction of participants. Only a few studies used content analysis, focusing on the 'conversation' in user groups itself.

To explore the potential of user forums as an information source for computer users in more depth, we analyzed the ‘opening messages’ (initial requests for help or information) of discussions (‘threads’) in user groups. We selected 50 threads from 5 different user forums on computers or software; only threads consisting of more than 3 messages were selected, and only threads that started with problems or questions related to using software or hardware (we excluded topics like buying software, meetings etc.).

Contextual Information in Opening Statements to Obtain Tailored Information

As pointed out above, we consider the opportunity to obtain tailored information as the most characteristic feature of user forums as a source of help. The first research questions were therefore: To what extent do opening statements refer to specific individual situations and circumstances of the help-seeker? And what kind of contextual information is given to enable the help-provider to offer tailored advice?

The following example shows different types of information [NB. Citations from user forums are printed in italics, without any changes in spelling etc. Short citations are separated by a double slash //].

*I have an external CD writer HP 8200 series.
Copying CDs used to work OK, but now it invariably fails. I'm using the "HP MyCD"
software. It comes up with the following error: "There was an error writing to the CD.
Please try again with a different disk."
When I click the Troubleshooting button, I get the explanation included at the end of this
message.
As far as I am aware, I am not using "high speed CD-RW disc", just ordinary cheap CD-
R discs.
Any ideas how to solve this problem?
Many thanks.
Herbert*

Apart from the request for help (*Any ideas how to solve this problem?*) and some conventional phrases (*Many thanks. Herbert*), this message contains an explicit description of the problem (*now it invariably fails*), which is supplemented with several types of contextual information.

- Hard- and software specifications: (*I have an external CD writer HP 8200 series; I'm using the "HP MyCD" software.*)
- A scenario of ‘what happened’ describing the situation (*When I click the Troubleshooting button, I get the explanation included at the end of this message.*)
- The error message that might help to understand what the problem is (*It comes up with the following error: "There was an error writing to the CD. Please try again with a different disk"*)
- A suggestion of what may have caused the problem (*As far as I am aware, I am not using "high speed CD-RW disc", just ordinary cheap CD-R discs.*)

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In addition to these five, some other types of contextual information were identified in other opening messages:

- Goals that the user wants to achieve (*I have 5 digit zip codes which I need to strip the right two characters from.*)
- Attempts made by the help-seeker to solve the problem (*tried recovery disk - didn't work.*)
- Sources that were already consulted by the help-seeker (*I have tried doing a Search Engine search for this, but have had little luck*)

Table 1 shows the frequency of these information categories within the corpus (we did not consider the amount of information of a certain type; it may vary from a couple of words to a very detailed description).

Table 1: frequency of information types in 50 opening statements

Information type	Number of statements containing this information (N=50)
Scenario	31
Hardware and software specifications	23
Goals	16
Attempts that failed	16
Suggestions about the cause	10
Error message	6
Sources already consulted	6

Of course, not every information category is relevant for each message. For instance, if there is no error message, it can obviously not be mentioned. The most outstanding result, however, is the fact that problems are so often described in scenarios. A closer look at these scenarios showed that 25 out of the 31 scenarios use the pronouns *I* and/or *my*, which can be interpreted as an indication that the problem or question is considered strictly personal. Moreover, 7 out of the 31 scenarios included an adverb of time to intensify the occasional character of the problem.

Only 2 of the messages did not contain contextual information. One of them was nevertheless successful in eliciting a (presumably) useful answer:

I was wondering if it is possible to connect 2 computers to one phone line and have them both on line at the same time. If so, how would I do that?

The other exception was less successful. The simple description *problem in dial-up networking* was answered with:

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*Hi Romacap,
Can you give us some details.
What kind of modem do you have?
What sort of errors are you getting?
Did it work before, or is it a new install?*

Interestingly enough, the answer reflects three of our most frequent categories: hardware specification, error message and scenario.

Politeness Strategies in Opening Statements

The second part of our preliminary study focused on the dialogic nature of user groups. Online documentation is a one-way form of documentation, the information is extracted from 'pre-fabricated' documents, even if the interface suggests some sort of dialogue (such as with Microsoft's Office Assistant). User forums offer an opportunity to construct solutions by collaboration and dialogue. There are many features that can be studied to characterize the dialogue that takes place in user forums. In this preliminary study, we confined ourselves to the use of so-called politeness strategies.

In a sense, asking help from strangers is a risky social action. On the one hand, the help-seeker shows his/her ignorance, which can be regarded as weakness. On the other hand, the help seeker imposes a burden on the (potential) help-provider: the request for help is an appeal on time and effort. Within the politeness theory of Brown and Levinson (1987), requests for help can therefore be regarded as Face Threatening Acts (FTAs). Brown and Levinson point out that language users will always try to compensate for these FTAs by using politeness strategies: conversational 'moves' that relieve the social burden caused by the FTA.

Several politeness strategies could be noticed in our collection of opening messages to compensate for the FTA caused by the weakness of the ignorant help-seeker. Some of the contextual information categories mentioned above have also a simultaneous social function:

- Information about attempts made by the help-seeker to solve the problem (*tried recovery disk - didn't work*).
- Information of sources that were already consulted, such as the manual of the online help.

The function of such information is not only to elicit tailored information, but also to justify appealing to the user forum by showing that there is no other way to solve the problem and that the help-seeker has undertaken some effort before addressing the question.

Of course, conventional politeness strategies are used as well, such as emphasizing the importance of the help (*The above, is of concern to me because of ...*) or expressing gratitude (*Thanks for any help you can provide me*).

The most important politeness strategy, however, seems to be the 'toning down' of the FTA, or even ignoring it altogether. For instance, 28 of the 50 messages do not contain an explicit request

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for help or advice but just ask a question or describe a problem. If there is an explicit request, it is often *indirect*, allowing the member of the forum freedom to ignore the appeal for help.

Characteristic examples are: *Opinions/ suggestions welcome // Someone an idea? // Any solutions? // Any Suggestions...?*

Another way of toning down the FTA is by indirectly formulating the question. Also this leaves the members of the forum free to ignore the appeal. There are several sorts of indirect questions:

- Referring to the possibility of something when one really wants advice about how to do it (*Is it Possible to Hide Your IP address while on line... // Is it possible to "print" to a text file through windows?*).
- Asking if somebody knows a solution, when one naturally wants to know the answer (*Does anybody know how I can type the Euro sign? // Do you know what this is?*).
- Simply describing the problem, without asking a question at all (*windows 98 accidentally deleted*).
- Emphasizing one's ignorance without explicitly asking a question (*I'm wondering how Explorer gets loaded into the memory // I'm curious to know why the 4th number changes // I'm not sure what an application is unless it is just any program*).

Table 2: Proportion of direct and indirect questions within the corpus

Question type	Number of opening messages containing this information (N=50)
Direct questions	15
Indirect "Is it possible" questions	13
Indirect "Do you know" questions	7
Other indirect questions	15

Conclusions of the Preliminary Study

The results of our preliminary study suggest that user forums, as expected, are often used to elicit tailor-made information. In many cases the questions are explained with scenarios that describe recent personal problems with using soft- or hardware. The help-seekers provide elaborate contextual information to enable a tailored answer to their problems. The study also shows that help seeking via user forums is a social process that requires specific communication strategies, such as politeness.

Further research must be conducted to refine the picture we have so far. Analysis of the reactions on opening messages must show whether they really do give tailored advice, and how politeness strategies are used. This research will not only broach contextual information and politeness, but also other aspects, such as the quality of instructions given by help-providers.

New Perspectives for Technical Communicators

It is hardly more than a decade ago that a major change took place in the world of technical communication. Technical writers saw themselves evolve to document designers, and online documentation was developed to supplement or to replace traditional paper documentation. If we look at the overwhelming growth of user forums on the Internet, we may expect technical communicators to assume two new roles: as moderators and participants of user forums, and as designers of platforms for such forums. To be prepared for this new role, it is essential to understand the needs and expectations of help-seekers and the mechanisms that guide the conversation in these forums. In any case, such technical writers will receive more respect and gratitude from users, as is shown by the following:

I just wanted to thank all of you out there for the amazing help you offer here on the forums. I can't tell you how many times you've helped me out of a mess or opened my eyes to new techniques and options that have since become indispensable for me. [...] It's nice to have contact with others in this field that come from such a wide range of specialties, experience, and locations. Ten years ago, who would have thought that a graphic designer in San Francisco California (USA) could seek immediate counsel from a multitude of professional designers and artists from all over the States and even across the Atlantic? Maybe I'm just being mushy (forgive me, but I am pretty girly) but really you all are such a help and a fantastic group of people! Thank you endlessly!

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