

# Instant messaging requests in connected organizations: 'Quick questions' and the moral economy of contribution

Discourse Studies
2014, Vol. 16(4) 488–513
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sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1461445613519021
dis.sagepub.com



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#### **Abstract**

In this article we study the work and communication practices of two highly connected organizations, the members of which have all access to instant messaging (IM) on a professional basis. We document the development of a communicational genre, that of 'quick questions', and analyze the sequence organization of such IM conversation threads. We show how 'quick questions' enable the collaborative accomplishment of complex, knowledge-intensive tasks by recruiting colleagues constituted as experts capable of quickly answering information requests related to ongoing tasks. 'Quick questions' articulate communicative practices, 'strong' distribution of tasks and 'organizing' in highly connected organizations. We argue that they enact a distinctive cognitive and moral economy based on minimal forms of interaction and exchanges (which we call 'contributions'), constituting a more general phenomenon.

## **Keywords**

Contribution, conversation analysis, instant messaging, organizations, questions, requests

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# Introduction<sup>1</sup>

Organizations can be treated as processes rather than structures, and their analysis as the theory of 'organizing' (Czarniawska, 2009), in which enaction and sensemaking activities play a central part (Weick et al., 2005). 'Sensemaking' covers a variety of interpretive activities, which are supported by linguistic and interactional resources, giving one a perspective on circumstances including persons, their objects, their institutions, and their localization in a given time and place (Taylor and Van Every, 2000). An organization is a practical accomplishment that is done one 'tele-action' at a time (Cooren, 2006). Communicating and organizing appear to be continuously ongoing and mutually elaborative processes.

Such is the theoretical frame we will use to study the kinds of behaviors which emerge following the introduction of social media, and more specifically instant messaging, into organizations. The uses of instant messaging at work has already been the subject of several studies, done in experimental or limited organizational settings (Cho et al., 2005; Nardi et al., 2000; Quan-Haase et al., 2005), in which instant messaging platforms were used either at the scale of a team or a medium-scale organizational unit, without any large-scale incentive from the top management for it being extended to the entire firm (Denis and Licoppe, 2005). These various studies converged in the identification of four kinds of uses of instant messaging: a) asking questions and requesting information; b) getting some kind of immediate response; c) testing the availability of recipients to arrange face-to-face or telephone encounters, a distinctive use which has been labeled 'outeraction' (Nardi et al., 2000); d) managing several simultaneous courses of interaction on multiple media. All four types of use can be combined on a given occasion.

In this article, we will only be considering cases in which the use of instant messaging has been extended to whole organizations. We studied two Canadian firms in which instant messaging had been implemented through a top management initiative and made available to all members. At the time of our study the management had not issued any orders as to how the system ought to be used. Our research therefore aims to provide an understanding of what happens in an organization when the use of such a powerful social networking tool becomes generalized over a period long enough to make possible the emergence of distinct communicative 'genres' (Orlikowski and Yates, 1994). How then may such genres contribute to the process of organizing, and what kind of 'connected organization' develops from the spread of such communicative practices?

On the methodological level, we would like to build on the intuitions of the 'organization qua organizing' research tradition. If the organization is seen to emerge from conversational and entextualization processes, then interviews may not be enough. One has to study actual interactions in order to get a grounded sense of what goes on there, and how participants orient to details and contingencies characteristic of the social occasion they are engaged in. We have focused here on a particular type of social interaction: information requests and clarification demands. Regarding 'epistemics in action' (Heritage, 2012), the asker frames himself as unknowing or less knowledgeable than the recipient. As we have seen from previous research, this constitutes a major type of use of instant messaging in the workplace, where instant messaging is perceived as a powerful resource to obtain information relevant to ongoing tasks without disrupting the tasks of the recipients or interrupting them too much (Garrett and Danziger, 2007). However, question/answer (Q/A) pairs also

constitute an interactional format which is very common in institutional settings that have constitutive features, such as sequence organization, action design and lexical choices, which are highly sensitive to the fine details of such settings (Heritage, 2004). Asking questions and producing answers are paired social actions which enact and reflect the goals and values of an institution or organization, and the identity of its members (Tracy and Robles, 2009).

We combined conversation analysis (CA), ethnographic observations and video recordings to understand how such instant messaging Q/A exchanges may be understood a) as ordered sequences and b) as reflexively tied to workplace activities that may occasion them. In that sense, our work is inspired by the 'workplace studies' tradition (Luff et al., 2000).

We will endeavor to show how what might look on the surface like a 'simple' information request actually constitutes a communicative genre in its own right, that of the 'quick question'. One cannot separate their cognitive function as a mechanism for the transfer of knowledge from the moral issues and sets of rights and obligations the fine details of their design, their production and their reception are oriented to, namely minimizing the work to be done by the intended recipient, who is constituted and recognized as the owner of a particular type of expertise related to his/her personal experience and singular professional history. By their orientation towards such a form of minimality, we will discuss how quick questions might be an instance of a particular form of social exchange, the 'contribution', which more generally plays a key part in the moral economy of 'connected' organizations in which activities are strongly distributed.

# **Methodology**

The research was carried out within two Canadian firms in which, on the initiative of the top management, an instant messaging system had been set up, together with a professional directory that covered the whole organizations. The initial idea was in each case to provide a new tool to facilitate communication between spatially distributed (Atlantic Coast/Pacific Coast) teams and units. At the time of our study there was no prescription concerning how to use the system, so that the uses we were able to observe were solely emerging from routine work practices and issues. The first firm, which we will call Mutech for the purposes of this study, was a medium-sized high-tech firm which provided information and communication technology (ICT)-based services. The second firm was a large Canadian telecommunications company, which we will call *Phoneco*. We recruited about 10 members in each firm. In *Mutech*, they were mostly service integrators or managers. In *Phoneco*, they were either sales persons catering to large businesses, or various staff members providing the former with various kinds of technical support. We conducted a one-hour interview with each person about their job and use of instant messaging. We also video-recorded two-hour sessions of them at work at their desk (all were working in open space offices), with a camera and a screen capture device. Three of them gave us access to the corpus of instant messages they had saved on their computer recorded by themselves (about 400 messages), adding to the 15 or so IM exchanges we recorded live. Eventually, we showed two participants video recordings of their activity to test some of our interpretations, the way it is done in activity theory (Engeström, 1999) and beginning to be envisioned in conversation analysis (Pomerantz, 2005).

# Producing questions and information requests by instant messaging: Sequence organization and message/action design

Our corpus features the same four general types of use which we had observed in previous studies. However, they had hitherto been described in broad categories, such as 'information requests', which did not adequately describe what was actually being done by members in such sequences. This left open many questions which we will now attempt to address by using our multiple sources of data. How are information requests produced and organized? What types of actions do they accomplish? Do such sequences take on specific forms in organizations where access to instant messaging has become widespread?

# Launching 'quick question' sequences

Such sequences often open with an exchange of greetings followed by a question, as in the following example:

Exchange no. 1.



**Figure 1.** Opening the IM address list to launch message I below. The screen capture shows how the IM windows opens up above that of the specifications document on which A is working, and to which the IM question sequence is relevant.

- 1. A (12:01:25 PM): salut Phil hi Phil
- 2. B (12:01:31 PM): salut

hi

3. A (12:01:49 PM): connais-tu le numéro de la dernière version du Address OSDM?

Do you know the number of the latest version of the Address OSDM?

In the next two IM exchanges, the question is produced at the first possible slot, after the greeting has been returned. This placement indicates that the question is the reason for the instant messaging interaction. It also happens fairly often that the question is produced in the first message after the initial greeting, or in a second message just after it, without waiting for the recipient to return the greeting.

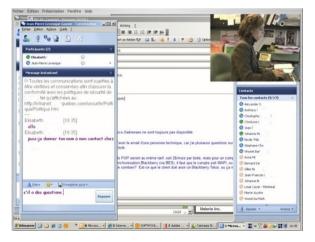
# Exchange no. 2.



**Figure 2.** The IM sequence below about the confirmation of the presence of a recipient to a meeting is opened on top of an open message referring to that meeting. The launch of the IM sequence appears to be occasioned by the reading of the message.

- 1. A (12:10:57 PM): Hey Albert!
- 2. A (12:11:03 PM): Do you plan to watch the LiveMeeting on mixed initiative?
- 3. B (12:11:26 PM): What's that?

# Exchange no. 3.

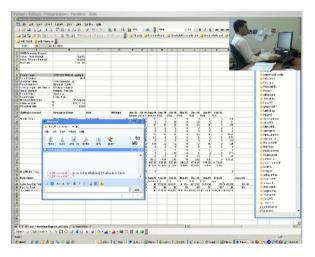


**Figure 3.** The IM question sequence below is opened on top of a message to which A is replying. The question appears to be occasioned by the writing of the email response, and its answer to be part of what A needs to complete her email response.

- 1. A (16:35): allo *hello*
- 2. A (16:35): puis-je donner ton nom à mon contact chez uniprix may I give your name to my contact in Uniprix
- 3. A (16:35): s'il a des questions techniques? in case he has technical questions?
- 4. B (16:35): NON *NO*

This kind of opening highlights an orientation towards producing a question at the first opportunity, and it reinforces its status of the question as the reason for the call and as the focus of the whole exchange. This is understood by the recipients in these two examples, for, when they eventually answer, they may not bother to return the greeting and directly address the question itself. In some cases, there is no greeting at all: the next exchange opens up directly on the request for information:

# Exchange no. 4.



**Figure 4.** The IM sequence is launched on top of the accounting spreadsheet on which A is currently writing, and it refers to elements of that spreadsheet.

- 1. A: Amanda is the effort for CR)1 already in 3445
- 2. A:?
- 3. B: yes

The intelligibility of such an exchange presumes a considerable amount of 'common ground' between the participants and shows their professional familiarity (Clark, 1996). The lack of initial greeting is also a characteristic phenomenon which occurs in conversations between participants who interact frequently. In co-present professional settings, it has been described as an 'open state of speech', which make superfluous the use of conventional openings (Goffman, 1981). For such spatially distant colleagues it

reflexively provides a witnessable sense of how they consider themselves to be 'present' to one another through the availability of instant messaging resources. It also shows how the production of a greeting by the caller, as in the first example, can also be understood as a way to check that the recipient is truly available, that is, beyond the fact that he is connected to the system, as shown by the presence indicator.

The first four examples above were taken during our video-recordings, so that contrary to sequences taken from our textual IM corpus, they can be associated with screen captures. In all cases, the different questioners were doing something related to the 'quick question', as evidenced by different documents and applications opened on the computer desktop. In extract 1, she was working on a specifications documents for which that information was relevant, and had been looking in her mailbox for the same piece of information before launching the IM request (Figure 1); in extract 2 she was considering a mail relevant to the meeting (Figure 2); in extract 3, she was in the process of writing an email to a customer who had alerted her to technical problems, and needed to give him a name for a contact (Figure 3); and finally, in extract 4, he had the relevant spreadsheet open on his computer desktop and was working on it (Figure 4). All available video examples are not given here, but it seems a recurrent feature of the video recordings of such sequences that they are occasioned by ongoing tasks, and that the requested pieces of information are relevant to the immediate business at hand: they are constituted as an 'immediate preoccupation' (Ochs et al., 1978).

The questions seem to work as requests for discrete pieces of information related to the business at hand, of which the recipient is not made explicitly aware, though he might infer the domain of tasks for which such requests might be relevant. Moreover, a common feature of these sequences is that the question is framed so that a confirmation would be enough (extracts 2, 3 and 4), or the provision of a discrete piece of information (extract 1). Their design projects the possibility of very brief answers by the recipients.

When users formulate the kind of activity they are doing when launching such sequences, they account for them as 'quick questions', as seen in the following extracts:

### Exchange no. 5.

- 1. A (2:45:08 PM): Hi Teddy!
- 2. B (2:45:21 PM): hi
- 3. A (2:45:27 PM): quick question: the NY usability lab is also your recording studio?
- 4. B (2:45:33 PM): yes
- 5. A (2:45:47 PM): ok, thanks. I was looking at its availability on Outlook.

# Exchange no. 6.

- 1. A (14:33): quick
- 2. A (14:33): how does n-best list work?
- 3. B (15:23): it's just a list returned by the recognizer
- 4. A (15:30): nice
- 5. A (15:30): thanks!

## Exchange no. 7.

1. A (17:32:17): Hi Lizbeth, quick question. If we wanted to upload caller data onto OSI, is it bn-insight or insight that we're suppose to use? I went into bn-insight, but I could not find the osd hotel demo folder.

- 2. B (17:33:16): one minute
- 3. B (17:40:13): well technically bn-insight is faster

Such a formulation highlights the fact that the question which is constituted as the reason for the exchange may be answered quickly. It suggests an orientation towards making the projected work of responding easier. Requests are dispreferred first pair parts (Schegloff, 2007), and their production often involves subtle displays of entitlement (Curl and Drew, 2008). Building entitlement for a request for information by formulating it as 'quick' both makes sense in an information work environment in which colleagues may be assumed to be collaborative and busy, and performs the setting as that type of working environment. Working backwards from such reasoning, we may make some inferences with respect to why such entitlement-building formulations might have been relevant. In extract 5, the question is not obviously related to an immediate task, and the initiator provides later an account of its relevance (line 5). In extract 6, the question is atypical in that it is designed as an open question, not usually associated with quick Q/A. In extract 7, the recipient is in a managerial position, and the asker takes extra steps in displaying that he has already tried as hard as he could for an answer (message 1), thus buttressing his entitlement to a 'quick question'.

Extract 7 also hints at a temporal organization of quick questions in which a response is expected within a reasonable delay. This is indicated by the suspensive instruction provided about a minute later (message 2) and an IM answer about seven minutes later. The delayed response on the same channel also raises a different issue related to the organization of 'quick questions'. Contrary to co-present conversations in which a first-pair part utterance prjects a next utterance, it is not a priori obvious that the response to an IM 'quick question' could not be done in another medium (by phone, email, a co-present encounter, etc.). However, IM 'quick questions' are massively responded to through instant messaging throughout our corpus. Extract 8 gives us a glimpse of the particular interaction order which underlies this observation.

#### Exchange no 8.

1. (15:31:43) 7	Tracy:	hi Lizbeth, I'm running offline recognition testing on linux (beeblebrox.speechworks.com) and noticed that as my script is running, it's also downloading the .wav files into my folder. Is there anyway to not have the .wav files copied into my folder?
2. (15:36:49) I	Lizbeth:	sorry on the phone
3. (15:38:06) 7	Tracy:	that's alright. I'm not in any rush. :)
4. (15:48:30) I	Lizbeth:	who are you
5. (15:49:52) 7	Tracy:	Tracy, I'm Brits replacement
6. (15:51:51) I	Lizbeth:	thanks –
7. (15:52:56) I	Lizbeth:	just that 142wang
8. (15:54:21) I	Lizbeth:	strange it should not do that

9. (15:54:42) Tracy: Totally understandable, I changed it to Tracy on my messenger, but I guess it isn't showing up on when I message others. Weird.

10. (15:59:33) Lizbeth: so the question is ? is it downloading it or creating new ones?

11. (15:59:56) Tracy: It's downloading the existing files from datadigest into my folder.

12. (16:00:39) Lizbeth: I never saw this - I would have to pass by - in 15 minutes ok yea that'd be great

14. (16:01:17) Lizbeth: I have one phone call and one mail to do and I'm coming great. Thanks

Tracy initially provides greetings and a question. The question is somewhat particular in the sense that it asks for advice in a form that does not necessarily project a quick answer. Interestingly the design of the question displays the task she is trying to accomplish, and shows the kind of trouble she is unable to manage. Displaying what you cannot manage on your own is a way to build entitlement in requests for help (for a review, see Edwards, 2007). The recipient reponds with a suspensive instruction (message 2) which is acknowledged by Tracy (message 3), and then launches an identification/recognition sequence (messages 4–9) in which it transpires that Tracy is a new temp and that her tag was ambiguous. That sequence provides additional evidence for entitlement issues regarding IM questioning. Five minutes later, Lizbeth returns to the question and reformulates it (message 10). Realizing that no quick answer is available, and perhaps also orienting to the initial particular design of the question as a request for help, she proposes to come to Tracy's desk and check with her, so that the answer, if any, will be discussed and provided face to face. This exceptional, deviant case suggests that when a quick answer is available (which also retrospectively validates that the initial question was designed as a 'quick question'), it is to be provided by instant messaging, while complex questions projecting complex answers may require other forms of mediated interaction (even warranting, as in extract 8, an office meeting). Users seem to be aware of this particular organization. In interviews they often asserted that when a particular problem requires structured thinking (rather than immediate responses) IM was not a good medium. Conversely, the instant messaging system was introduced with managerial arguments regarding the difficulty of joining people on the phone or meeting them, and the interest of treating many 'minor' issues by IM. This leads to a particular interaction order constitutive of 'quick questions' as a genre, in which questions designed so as to provide quick answers, and to be warranted, project answers done by instant messaging. We will now look more closely at the design of IM 'quick questions'.

# The formation of IM 'quick questions'

In an ongoing study of unplanned office encounters (Tuncer and Licoppe, 2013) we observed that a routine organization of such co-present encounters involved the production of information requests as the reason for the visit. The usual format for doing so is through the use of pre-sequences (Terasaki, 2004), either pre-pre's (Schegloff, 1980) like 'may I ask you a question?' or pre-requests. Such an organization may happen in IM sequences, as shown in extract 9.

## Exchange no. 9.

- 1. A (11:41:36): hi Kapil, it's Tracy from across the floor
- 2. A (11:42:40): how well do you know vi?
- 3. B (11:43:24): well
- 4. A (11:43:30): GOOD!
- 5. B (11:43:34): xemacs
- 6. B (11:43:37): user
- 7. A (11:44:04): emacs? not vi? :(
- 8. A (11:44:11): :-(
- 9. B (11:44:40): thanks anyway.

Here, the first message is a greeting, followed by a self-identification and self-localization, whose production can be understood given the fact that the caller is a newly arrived temp. This work of identifying and placing herself suggests that information requests may not be addressed by just any member to any other member. We will discuss this point later. The initial message is followed by a pre-request testing whether the recipient is knowledgeable about a particular kind of software. The positive response (line 3) gives rise to an emphatic positive appreciation (line 4), which lets us anticipate the production of the actual request. However, the recipient then produces a repair which narrows the range of his competencies to certain versions of the software only (lines 5–6). This is treated by the caller as a blocking answer to her initial pre-request (lines 7–8). She then ends the exchange (line 9).

Such a pre-sequence-based organization is, however, very rare in the IM corpus, where the request may be provided in a direct way (extracts 2, 3, 4), or indirectly (extract 1). In all cases, the initial request takes the form of a yes/no interrogative. Previous research on Q/A sequences in institutional settings has identified several question design types: 'pseudo-declaratives', 'yes-no interrogatives' question tags (Raymond, 2003), questions offering a 'candidate answer' (Pomerantz, 1988) or alternative answers, and more open 'wh-questions' in which 'wh' refers to the question words 'who', 'when', 'where', 'what', etc. (Tracy and Robles, 2009). In some institutional settings, such as courtroom hearings, these question types have been associated with the act of trying to enforce varying degrees of control over the answer, particularly during crossexaminations of witnesses (Danet and Bogoch, 1980). It is significant that many instant messaging requests in our corpus take the form of yes/no interrogatives, as in the examples above. Such questions introduce a preference for 'type conformity' in the answer (Raymond, 2003). Such a preference system must be considered in relation to another preference system, which favors granting requests over refusing them (Sacks, 1987). The interplay between these two systems of preferences is manifest in exchange no. 3, where the authorization request takes the form of a yes/no interrogative. The negative answer displays type conformity, but is dispreferred in rejecting what the first participant proposes (Schegloff, 2007): the unmitigated rejection delivered in all caps uses a preferred message design to deliver a dispreferred action.

As we will see now, exchange no. 1 is particularly interesting, for the caller has taken great pains to design its information request. The initial question in line 3 is a yes/no interrogative, but since it checks the capacity and/or willingness of the recipient to give

a software version number rather than directly asking for it, it may be understood as an indirect request (Schegloff, 1988). However, rather than waiting for the answer to the embedded question, as would be usual, the caller reformulates her question in the following messages:

Exchange no. 1 (extended).

1. A (12:01:25 PM): salut Phil

hi Phil

2. B (12:01:31 PM): salut

hi hi

3. A (12:01:49 PM): connais-tu le numéro de la dernière version du Address OSDM?

do you know the number of the latest version of the Address ODSM?

4. A (12:02:05 PM): est ce que ça date de 2005/03/05

is it dated from 2005/03/05

5. A (12:02:06 PM):

6. A (12:02:35 PM): version 2.1 apparemment. Est-ce que c'est la plus récente?

version 2.1 apparently. Is it the most recent?

7. B (12:03:09 PM): 2.0.3 pour américain?

2.03 for american?

8. A (12:03:39 PM): moi j'ai la 2.1 et je pense bien que c'est pour les US.

I have got the 2.1 myself and I think it is for the US.

9. A (12:03:56 PM): tu veux que je te l'envoie? c'est pour savoir si c'est la dernière you want me to send it to you? it is to know if it is the latest

10. version.

version

In messages 4–6, which the caller sends so quickly after the initial question that the intended recipient does not have the time to respond, the caller transforms her initial question by providing a candidate answer, turning her question into a yes/no interrogative in the process. Thus what appears as a self-initiated repair of the initial indirect request for information into a direct yes/no interrogative, displays an effort on the part of the caller to provide relevant information and possibly also to lessen the work the recipient has to do to answer, in the sense of confrming a number rather than providing it. It suggests the caller does not find the initial indirect request a convenient sequence initiator, and is orienting towards the minimization of the effort required of the recipient to respond.

Such an orientation, which we will show to be a core feature of IM 'quick question' answers, may account for the the relative scarcity of pre-sequences in such IM exchanges. Pre-requests are used to test the grounds for the production of a request and minimize the chances of its being rejected. Therefore, the more delicate the request, the more relevant becomes the use of a pre-request. For instance, in the atypical extract 5 earlier, the request remained unspoken, but one may infer from the generic form of the pre-request that it might involve a significant amount of help or explanation regarding some functionality of the software. Conversely, the more oriented the asker with respect to making the request simpler and less problematic, and the easier for the recipient to respond, the less relevant the use of pre-sequences becomes.

Let us now return to exchange no. 1 and see what happens there next.

Exchange no. 1 (extended).

```
6. A (12:02:35 PM): version 2.1 apparemment. Est-ce que c'est la plus récente? version 2.1 apparently. Is it the most recent?
```

7. B (12:03:09 PM): 2.0.3 pour américain? 2.0.3 for American?

8. A (12:03:39 PM): moi j'ai la 2.1 et je pense bien que c'est pour les US.

I have got the 2.1 myself and I think it is for the US

9. A (12:03:56 PM): tu veux que je te l'envoie? c'est pour savoir si c'est la dernière you want me to send it to you? it is to know if it is the latest

10. version.

11. NA (12:04:03 PM): A moins que je demande à Bart ... *Unless I ask Bart* . . .

12. B (12:04:06 PM): pour Aeroplan on a 2.03 build 4345-15 \$\$
for Aeroplan we have 2.03 build 4345-15 \$\$

13. B (12:04:20 PM): Bart ne s'occupe plus des OSDMs

Bart does not work any more with OSDMs

14. B (12:04:25 PM): C'est nirbhay *It's nirbhay* 

After a repair and an inserted clarification sequence (lines 7 and 8), the caller proposes to forward her own version to verify whether it is the latest (line 9). She thus displays again her orientation to facilitate the potential work the recipient will have to do to answer. She also displays her readiness to accomplish some work herself to that end. In line 11 she suggests that she could ask someone else, thus evoking the possibility that one felicity condition for her request might not be fulfilled, namely that the intended recipient is not the person to whom it should be made. By doing so, she offers a place in the sequence for the recipient to agree or disagree, thereby reconstructing a pre-sequence environment. The recipient, however, does neither. He rejects the suggestion and indicates another colleague as more suitable, because he is the one who currently deals with this particular software. He therefore also orients to the idea that someone else might be more entitled and able to answer. However, by not saying so overtly, he posits himself as a potential answerer, if perhaps not the best. This assessment is based on the fact that the other person is specifically and officially responsible for the software, and therefore a kind of 'expert' in the matter.

By the way the exchange continuously moves from a pre-sequence to a yes/no interrogative information request and back again, this exchange informs us about the felicity conditions for the latter, which we will henceforth call 'quick questions' for reasons which will be developed further below. 'Quick questions' are characterized by the following:

1. They ask for some agreement, confirmation or permission, or for a piece of information framed as a discrete item (e.g. a software version number, a name, a figure, etc.), constituted as an 'immediate preoccupation' (Ochs et al., 1978), usually relevant to an

- ongoing course of activity which may or may not be referred to overtly by the asker. Their design frames them as 'quick' by displaying the fact that they project the possibility of a quick, sequence-closing answer (at least in principle), through the provision of an agreement or a discrete piece.
- 2. The 'quickness' of such IM questions and their related design are a constitutive feature of their accomplishment as IM sequences. IM is oriented to as a proper medium for such questions in such knowledge organizations in which members are expected to be busy and mostly unavailable on the phone or face to face. Conversely, the performance of the sequence through instant messaging performs the question as 'quick' enough. As we have seen in extract 8, the complexity of the projected answer may warrant a face-to-face encounter.
- 3. In many settings requests are dispreferred actions, the design of which involves entitlement issues (Curl and Drew, 2008; Heinemann, 2006). While entitlement also builds here on prior experience of collaboration or institutional roles through their design as 'quick questions' projecting 'quick answers', and may occasionally involve explicit displays of what the asker can't manage by himself, thus leaning towards the framing of the questioning sequence as a request for help (Edwards, 2007; Raymond and Zimmerman, 2007), such IM requests are mostly designed so as to build entitlement by making possible and relevant the fast and almost effortless production of a sequence-closing response by the recipient, and thus a short encounter their default outcome. IM 'quick question' sequences thus seem to orient in their particular way towards the more general maxim that 'little questions get little answers' (Heritage and Raymond, 2012).
- 4. By a design through which one's questioning actions seem to impose on the recipient or impede her activities, appears as oriented towards preserving the recipient's negative face (Brown and Levinson, 1987). The recipient is configured as a particular type of busy professional who has both a limited availability and the specific kind of expertise which allows him/her to answer quickly, precisely and with minimal effort.
- 5. The asker continuously displays his/her orientation towards all these features, and particularly towards designing his/her request so as to make answering it a quick and almost effortless action on the part of the recipient, to whom the request appears as an unforeseeable event.

This provides for the almost laconic character of some exchanges of the kind, as in example no. 4 given below in more detail, in which both participants seem to avoid any superfluous words.

# Exchange no. 4.

- 1. A: Barbara is the effort for CR)1 already in 3445
- 2. A:?
- 3. B: yes
- 4. A: thanks
- 5. B: but there's more to come in October

It is interesting to note that, despite the marked orientation towards 'quickness' of the exchange – visible, for instance, in the lack of greeting, the yes/no format of the initial question and the minimal answers – there is no guarantee that it will actually be over quickly. Like any ordinary conversation during 'closings' (Schegloff and Sacks, 1973), the IM conversation offers slots where an expansion upon the previous topic or the introduction of a new topic, as in message 5 above, can inaugurate a new development. So even though 'quick question' sequences display a collaborative orientation towards getting through them fast and with little effort, it often happens that conversations initiated with a 'quick question' linger on, moving towards other, sometimes more personal, topics.

# The sequential organization of information requests: Answers' receipts in third position

What kind of social action is actually accomplished by these information request/ answer pairs? Previous work on question/answer sequences in conversation analysis (Heritage, 2004) has shown that an important part of the answer lies in the type of third position interactional move produced in a particular sequence in a given setting. In ordinary conversation, for example, after having had his/her question answered, the asker usually produces a 'change of state token' like 'oh', which shows his/her change of state of information and confirms the newsworthiness and relevance of the answer (Heritage, 1984). However, it appears that such markers in third position are highly sensitive to the institutional character of the setting (Heritage, 2004). For example, in television news interviews and talk shows, they disappear completely, which shows that, although the question is asked by the host, the answer is understood to be in fine addressed to the (invisible) audience (Clayman and Heritage, 2002). Another example can be found in doctor-patient interactions. When doctors question their patients on their symptoms, they often receive their answers with an 'okay' (Heritage, 2004) instead of an information receipt marker of the likes of 'oh', which might call into question the doctor's expertise or suggest that the symptoms described are of a particularly unexpected and potentially alarming nature. Also, in classroom settings, in response to an answer to his/her question, the teacher either confirms or disconfirms the validity of the answer. This shows retrospectively that he/she already knew the answer and was not expecting to receive new information by initiating the interrogative sequence, but was rather looking to assess his/her students' knowledge and competence (Mehan, 1979).

In the great majority of the interactions found in our corpus, the asker receives the answer by thanking the recipient for his/her answer, as in exchange no. 4 (message 4: 'thanks'). In exchange no. 6 following, the answer is received over two successive messages, first by a positive appreciation, which marks and acknowledges a change in the asker's state of knowledge (message 4), then by an expression of thanks, which the asker highlights with an exclamation mark (message 5). This retrospectively suggests that acknowledging the value and newsworthiness of an answer may not suffice; thanking the recipient remains necessary.

# Exchange no. 6.

```
1. A (14:33): quick
```

- 2. A (14:33): how does n-best list work?
- 3. B (15:23): it's just a list returned by the recognizer
- 4. A (15:30): nice
- 5. A (15:30): thanks!

The thanking message in third position shows that the provision of a relevant answer is treated as a kind of service rendered by the recipient to the asker. In this respect, cases where the answer is not deemed by the asker to be completely satisfactory are particularly interesting, as in the conversation we discussed earlier with respect to its presequential character:

# Exchange no. 9.

```
1. A (11:41:36): hi Kapil, it's Tracy from across the floor
```

- 2. A (11:42:40): how well do you know vi?
- 3. B (11:43:24): well
- 4. A (11:43:30): GOOD!
- 5. B (11:43:34): xemacs
- 6. B (11:43:37): user
- 7. A (11:44:04): emacs? not vi? :(
- 8. A(11:44:11)::-(
- 9. B (11:44:40): thanks anyway.

The clarification in lines 5 and 6 is treated as blocking the provision of answer, as shown by the emoticon expressing disappointment which punctuates message 7, mitigated by the final 'thanks anyway' message. Though unsuccessful in terms of providing information, the conversation still justifies a thanking message, presumably to acknowledge that the recipient has shown his availability and has cooperated by taking the time to participate in the IM sequence. Unproductive information requests may still reinforce bonds between participants. In that respect, the cooperative orientation of the recipient deserves a mark of gratitude.

However, in some instances, the answer is not received and acknowledged with straightforward thanks:

## Exchange no. 3.

```
1. A (16:35): allo
```

hello

2. A (16:35): puis-je donner ton nom à mon contact chez Uniprix

may I give your name to my contact at Uniprix

3. A (16:35): s'il a des questions techniques?

in case he has technical questions?

4. B (16:35): NON

NO

5. A (16:35): ok, qui, bernard?

ok. who. bernard?

```
6. B (16:35): oui 
yes
7. A (16:36): cool 
cool
```

The final receipt occurs in message 7 with a simple positive appreciation ('cool'), which is oriented towards the resolution of the initial problem at a generic level. While the caller initially did not know to whom she might address her customer for support, she now has a name. However, her initial move was actually to request permission to give the name of the recipient (line 3), which had been emphatically denied without any account or justification (line 4), although this constitutes a dispreferred and disaffiliative response (Sacks, 1987). In her following message (line 5), the caller accepts the negative answer with an agreement token ('ok'), and produces an open question marking that it is an organizational norm to find someone to support the customer and that the issue cannot be left open ('who?'). She then introduces a candidate answer ('Bernard'), a suggestion with which the recalcitrant recipient finally agrees (line 6). Providing a positive assessment without directly thanking the recipient makes sense if one retrospectively considers that, though he has cooperated with her to solve the problem, he has kept within the strict boundaries of professional solidarity, without committing himself personally or volunteering a solution. So although there is evidence of cooperation, there is no sign of personal implication, nor of a personal service rendered by the recipient.

This deviant case sheds some light on the meaning of the 'thanks' that ordinarily close such instant messaging information requests. They constitute a mark of gratitude oriented to a) the production of a relevant and informative answer which will probably solve the caller's immediate concerns, and b) the availability and cooperative behavior that are displayed in the provision of the answer (even if they are not satisfactory), and the time and effort given to the request-initiated exchange. Such actual cooperation is all the more significant considering that we are here in market-oriented, knowledge-intensive organizations, where members are under constant time pressure. In that sense quick questions both perform their recipients as that kind of busy professional, while deferring to the work constraints of the recipient. They act as a form of 'negative politeness' (Brown and Levinson, 1987). Giving time and energy to answer a colleague's requests beyond the course of one's own tasks is part of these mundane 'social exchanges' which go beyond the rational organization of work (Alter, 2009) and justify expressions of gratitude. The particular design of these interactions displays a sensitivity towards the time pressure which weighs upon all members (e.g. formatting the question so that it can be answered quickly), and an orientation to the kind of availability which instant messaging (with its presence indicator) makes possible and visible when it is generalized to the whole of an organization.

# Accessibility, cognitive work and the economy of contribution

Instant messaging, accessibility monitoring and the 'strong distribution' of work activities

'Quick questions' and the moral and practical management of mediated mutual accessibility. In large-scale organizations today, it is becoming increasingly difficult to reach someone

directly on the phone: about 70% of calls never reach the recipient (Rice and Shook, 1990). Other kinds of studies have shown how work activities are experienced as fragmented and often interrupted (O'Connaill and Frohlich, 1995; Panko, 1984). Some managers now even prefer to let their work be directed by interruptions rather than try to keep to some kind of pre-defined plan (Hudson et al., 2002). The practical (and necessarily also moral) problems that arise from availability issues in organizations are consequently becoming more and more acute.

It is against such an organizational background that the success of technologies such as instant messaging builds. It even sheds some light on some of the current uses of instant messaging, such as verifying the presence indicator before calling someone on the phone, or sending an information request occasioned by an ongoing activity. Members consider that being connected to the system, which is made visible by the IM presence indicator, may be interpreted as a signal of availability for interactions and work-related cooperation-oriented communication events. Such orientations are displayed in messages that are sometimes jokingly sent to colleagues from one's personal IM list,<sup>2</sup> for instance, commenting on the fact that one has seen him/her connect to the system at an 'unusual' hour in the workday:

# Exchange no. 10.

- 1. ((A is notified that B has connected to the system by a pop-up window))
- 2. A: comon man get to work ;-)
- 3. B: hey hey

Quick questions are a way to balance the immediate requirements of work activities (e.g. getting a particular piece of information needed to complete a current task) and the moral consequences of being able to ask someone something immediately, thus treating colleagues de facto as information 'affordances'. This tension is acute in the management of professional relationships in a 'connected' mode. On the one hand, as soon as one encounters a task-related problem, it is possible to make a request to a colleague whose 'presence' can be checked in one click via the instant messaging platform. On the other hand, it is highly risky to overplay one's right to infringe on one's colleague's accomplishment of his/her own task. A kind of 'ritual offence' could be committed by asking a colleague for help in the wrong way or at the wrong moment.

Recognizably formulating one's demands as requests for help or information, to which it will be quick and easy to answer, provides a kind of acceptable compromise. It shows the requester's concern to minimize the effort asked of the recipient, while performing him/her as a busy person whose time is valuable and scarce, displaying thus a form of respect. It is important to highlight the subtlety of the interpretive work and interactional norms enacted by some of the participants of the study. A woman to whom we showed a video recording of her asking a 'quick question' told us that she would not frame the opening in the same way depending on whether she was addressing one of her peers or one of her superiors. For the latter, instead of sending first a greeting and then the request in the following message, it seemed to her more proper to send a single message with a greeting plus a 'quick question', so as to minimize the attention load of the recipient (she deemed two successive instant messages to require more attention than just a single one). More generally, it is not proper to send 'quick questions' to just

anyone. Their design is closely adjusted to the recipient, on the basis of a relational and interactional analysis of the practical and moral consequences of such requests.

'Quick questions' and the 'strong distribution' of work activities. The design of a 'quick question' frames it into a short time scale, calling for a quasi-immediate response, as it requires minimal effort and the recipient is already connected. So it retrospectively appears oriented towards a problem that the caller is experiencing in the same time frame. In that sense, the 'quick' question is designed to appear 'occasioned' or 'settinged', that is, related to an issue an ongoing task has just made salient and which warrants the asking. It is shaped as a response to a more or less blocking issue which has just arisen and which can easily be solved with the help of the recipient in a way which will require little effort on his/her part. The few video recordings of instances of 'quick questions' which we were able to make confirmed that, in nearly all cases, such requests were related to another screen-based task which was active a few seconds before the initial message was sent by the caller.

This is made explicit in a fair number of cases. In exchange no. 7 for example, the initiator implies that he is consulting the planning of the studio room, the use of which he is asking the recipient about. In exchange no. 1, the caller gives very precise information on the version of the software she is interested in, implying that she has it at hand (or rather 'on screen'), and the video clearly shows that she checks it and that it was related to the task she was doing before she called. She then proposes to send it immediately to the recipient, which also implies that she has it within her mouse's range of action, and that the requested information is useful to what she is currently doing, though the latter is not directly specified in the messages.

'Quick questions' thus present themselves as occasioned by an ongoing task, the accomplishment of which makes the connected recipient now appear as a kind of human practical resource. The mere fact of asking a 'quick question' performatively transforms what was generally an individual course of action into a collaborative one. It is interesting to introduce here the distinction between 'weakly distributed' activities and 'strongly distributed' ones (Quéré, 2006). In a 'weakly distributed' activity, the interdependance of tasks between the participants is such that they must be accomplished successively: worker B needs the final output of a task done by worker A to start. Participants appear to have distinct and complementary roles. On the other hand, in a 'strongly distributed' activity, the accomplishment of the actions of A and B are interwoven, such that each has to monitor what the other is doing moment by moment and adjust to it, since A's actions continually transform the context of B's activity in a meaningful way, and vice versa.

In one of our video-recorded instances at *Phoneco*, during which exchange no. 3 takes place, a customer relations operative, responsible for customer accounts, is answering an email from one of her customers, who has pointed out two problems: a technical one and a commercial one. She must identify and put her customer in touch with two different members of the support team she works with, the acceptance of which she must secure beforehand. Had she no access to instant messaging, one would imagine she would try to reach them by phone or by email, and that only then would she be able to write her reply

to the customer. Such a recruitment process could take hours or even days, and the resulting collaboration would typically appear as a 'weakly distributed' accomplishment: she would need her colleague's agreement before she could start writing her final reply to her customer. This is not what she does here, however. She reads the email onscreen, starts to reply to it, then opens up two IM windows with relevant colleagues (exchange no. 3 is taken from that sequence) and chats with them to secure their agreement while she continues drafting the email reply. The treatment of that customer email is actually accomplished in a 'strongly distributed' collaborative mode.

'Quick questions' are both a consequence of 'strongly distributed' collaboration, in which the need to constantly verify small things with collaborators is acute, and a resource for its development (in the example above, the 'quick questions' provide for the emergence of a 'strongly distributed' collaboration). In that sense, 'quick questions' are reflexively tied to forms of 'organizing' oriented towards a 'strong distribution' of tasks and grounded in mutual expectations about the real time accessibility of colleagues. 'Quick question' after 'quick question', the organization, whose workings occasioned them in the first place, is performed as highly connected and its activity as 'strongly distributed'.

One can still wonder why 'quick questions', though used in both of these two organizations operating in the highly competitive high-tech sector, have evolved into a communicative genre within *Mutech* but not in *Phoneco*. One now requires a better understanding of the part which such an interactional resource may play in the social distribution of cognitive work.

# 'Quick questions', expertise and the asymmetric division of cognitive work

Social cognition research contrasts two very different forms of division of cognitive work (Goldman, 1999). In the first, which typically corresponds to the information request situation, one of the two participants knows something which the other does not, and provides the information he/she has in his/her reply to the asker. His/her knowledge is transmitted (ideally directly, unaltered) in what appears a highly asymmetric division of cognitive work. In the second, both participants have some initial knowledge, and engage in an elaborative dialogue from which gradually emerges a new shared knowledge. The first mode is oriented toward the transmission within the organization of pre-existing knowledge and the second towards its dialogical production between members, both being potentially affected, albeit differently, by the type of technological mediation which supports the communication (Conein and Latapy, 2008). 'Quick questions' prototypically lean towards the first mode and an asymmetric division of cognitive work.

Asking a 'quick question' apparently presumes passing some prior judgment of the recipient's ability to reply quickly, and therefore of the distribution of expertise in the organization, that is, 'who knows what' and 'who knows who knows what'. However, 'quick questions' also produce such an organization of knowledge as an emergent and endogenous feature of such instant messaging sequences. To illustrate this, let us return to exchange no. 1:

Exchange no. 1 (extended)

6. A (12:02:35 PM): version 2.1 apparemment. Est-ce que c'est la plus récente? version 2.1 apparently. Is it the most recent?

7. B (12:03:09 PM): 2.0.3 pour américain? 2.0.4 for American?

8. A (12:03:39 PM): moi j'ai la 2.1 et je pense bien que c'est pour les US.

I have got the 2.1 myself and I think it is for the US

9. A (12:03:56 PM): tu veux que je te l'envoie? c'est pour savoir si c'est la dernière you want me to send it to you? it is to know if it is the latest

10. version.

11. A (12:04:03 PM): A moins que je demande à Bart ...

Unless I ask Bart ...

12. B (12:04:06 PM): pour Aeroplan on a 2.03 build 4345-15 \$\$ for Aeroplan we have 2.03 build 4345-15 \$\$

13. B (12:04:20 PM): Bart ne s'occupe plus des OSDMs

Bart does not work any more with OSDMs

14. B (12:04:25 PM): C'est nirbhay *It's nirbhay* 

We saw how the caller offers to send her own version in a witnessable effort to ease the task of the recipient (lines 9–10). This offer is followed by another message in which she evokes the possibility of asking someone else, thereby providing a candidate, whom we learn (in the subsequent replies) used to be the person locally responsible and knowledgeable about this kind of software (lines 13–14). The whole exchange makes visible that a good candidate for a 'quick question' is someone in the organization who has expertise and responsibilities (and therefore entitlement) concerning the topic, because one could precisely expect him/her to answer quickly and immediately. Actually, in this exchange, the recipient, who provides a non-decisive answer in line 12 by just mentioning the number of the version he is using without stating whether it might or not be the latest, repairs her suggestion in line 13 and provides another candidate in line 14, thus aligning with the suggestion and what it normatively implies – that is, that a good candidate, if not the best, for a recipient for a 'quick question' is the best-known expert available.

So a 'quick question' is not just 'quick' because it is designed to allow a quick reply. It is also 'quick' when it is addressed to the proper recipient. That person is someone professionally 'close' enough that one can ask him/her for help in a straightforward manner, but, more importantly, it is someone who has enough experience and competence on the topic to be able to reply quickly and with minimal effort. The 'quick question' both recognizes and performatively produces its recipient as an expert – not in the traditional sense in which the expert is someone who can handle and solve patiently and somewhat tediously a complex problem by relying on high-level skills, but in the sense that, thanks to the experience and related knowledge the recipient has built during his/her professional career, he/she is able to answer quasi-immediately. That person will have experienced enough similar situations to recognize the underlying pattern which he/she can match up to his/her own experience through implicit heuristics, so as to provide a fast answer (Dreyfus and Dreyfus, 1987).

In summary, the 'quick question' communicative genre relies on an asymmetric division of cognitive work, to whose production it also contributes. The recipient is identified and recognized (and thus morally valued) as an expert, if not the expert for that particular question, with the special experience and competences to reply to it quickly. Such a recognition, and the care displayed by the asker to design the question for it to be quick and easy for the right person to answer, provides a token of respect, which is needed to counterbalance the possible impression that the recipient might get of being treated as a ready-at-hand instrumental resource made visible and available in the asker's informational ecology by the instant messaging user interface. On the asker's side, all this relies an another kind of organizational competence, which echoes some observations made in management science on the fact that cooperation between organization members in different places depends crucially on their amount of 'mutual knowledge' (Cramton, 2001). The good use of 'quick questions' is grounded in the capacity of the asker to know 'who knows what' or 'who knows who knows what' with enough detailed personal and organizational knowledge to assess the particular ease or difficulty that a given respondent might have to respond to the request.

From an 'organizing' perspective, the evolution of 'quick questions' into a communicative genre involves a cognitive and moral dimension. On the cognitive side, which organization studies mostly address, it highlights and redefines the problem of 'mutual knowledge' encountered in organizations with spatially distributed teams and members. The organizational knowledge and skills needed to know 'who knows what' are not easily formalized or prescribed. They emerge from the flow of interactions and transactions which unremittingly occur in firms, and produce the organization as sets of nodes for the exchange of expert, punctual pieces of information, with local experts armed with specific knowledge related to their particular professional career. On the moral side, the felicitous accomplishment of such kinds of information requests appears as the provision of a service, that is, an informal social exchange which may reinforce individual bonds between members of the organizations in a way which combines, in variable proportions, personal services and mandatory cooperation. The success or failure of these small-scale, informal and unplanned cooperations performs 'connected organizations' as an ecological niche for the development of strongly distributed activities, of networked informal collaborations, of a collective intelligence based on highly asymmetric division of cognitive work, and of a kind of effervescent solidarity built on the continuous flow of demands and responses through the medium of instant messages.

Infrastructures for the distribution of information usually involve people and document repositories. In the first case, in which people are nodes of knowledge, information can be retrieved on the fly in the case of co-present teams, or through requests involving communication technologies (paper-based or digital) in the case of spatially distributed teams. In the second case, information is stored, tagged and arranged in paper archives or databases for later and supposedly easy retrieval. The IM 'quick question' genre somehow pushes the people-based and talk-supported organizational information distribution infrastructure towards a kind of human information repository. This is for instance observable in the way the use of 'quick questions' makes rare the use of pre-sequences, which are a standard format for information requests in co-present encounters and in mediated encounters. But a possible consequence of such a shift is that a generalized use

of routine, unmarked 'quick questions' may also threaten the face of recipients by treating them as kinds of always available, on the fly information providers.

Let us finally remark that the cooperation networks that emerge from such a ceaseless flow of information requests operate at an intermediate scale. Their scale is larger than that of teams or single projects, at which scale the communication genres which emerge with digital communication are more oriented towards the temporal coordination of goal-oriented collaborations (Im et al., 2005). However, these cooperation networks are smaller than large-scale and even global epistemic networks such as Open Source developers, for they remain mostly within the boundaries of firms. Once an instant messaging platform has been implemented in the whole organization, 'quick questions' may be addressed to competent colleagues who belong to the same organization but do not necessarily work in the same team or on the same projects. The flow of these particular types of information requests sketches a dynamic network which operates at a scale which is almost intermediate between the team and the firm whose information flow it vascularizes. One 'quick question' after another, the organization as a process is performed as an informal network of pairs of information-exchanging nodes, made of information seekers on the one hand, and, on the other hand, local expertise owners accessible in one or two clicks, whose connectivity may be continuously monitored. It is the locus of a type of collective intelligence which is mostly a-hierarchical, but also highly asymmetric in its division of cognitive work.

# Conclusion

The final issue we would like to address here is how the development of the 'quick question' genre in connected organizations may be related to larger transformations of communication and communication practices. One way to look at it is to consider the kind of transaction which 'quick question' sequences may enact. The answer to a 'quick question', if deemed satisfactory, confirms the initial demand as a proper kind of request and the expert status in which the respondent was placed as the recipient of such a request. So the recipient may derive a kind of symbolic gratification from the exchange (he/she has been 'recognized' for his/her capacities and shown respect accordingly). The recipient may also acquire some rights of his/her own to reciprocate such requests if needs be, and if the initial asker has some relevant knowledge of his/her own. However, as is the case with most informal social occasions at work, from ritual dinners to small forms of help between colleagues, he/she does not derive any immediate or tangible return for his/ her efforts and the information he/she has helped the asker with. 'Quick question' sequences, when successful, are not 'interested' transactions in the economic sense (i.e. one receives no direct benefit or counterpart). Neither can they be considered as gift, for it would suppose the apparent free will of the donor: gifts are not to be requested. 'Quick questions' belong to a different class of transactions.

The object of the 'quick question' is cognitive. It is punctual information and simple bits of transmissible knowledge which are requested and granted. Moreover, the 'quick question' is witnessably designed to allow for a quick answer and to minimize the work of the recipient to respond. So the requested information is framed so as to be simple, discrete, and easily accomplished within a single message: in the examples we have seen,

an agreement or a disagreement, an identification number, the location of a document, the name of a colleague, etc. The proper recipient is the one who, because of his/her particular experience, can give a quick answer to that particular question. Replying in kind will confirm him/her as a kind of expert on the matter. Finally, 'quick question' sequences emphasize discretion and goodwill, and bond their participants. They rely on informal interpersonal networks of cooperation which they continuously support and maintain. In a world where time constraints and market pressure push towards the disappearance of traditional forms of work-based solidarity and commonality, such as informal meetings where members trade 'war stories' (Orr, 1996), ironic office parties (Alter, 2009), etc., they constitute a vehicle for reasserting horizontal forms of solidarity at work. As we have seen, because the organization of such instant messaging exchanges derives from that of conversation, 'quick questions' can always move towards other topics in the closing sections, such as personal issues, work-related banter, jokes, etc. And they often do.

Drawing on some of these characteristics, we propose to call 'contribution' this kind of transaction founded on the exchange, of discrete bits of knowledge and characterized by the minimization of what is exchanged on the one hand, and of the efforts which are required from the participants who provide the contributed items, on the other. 'Contributions' differ markedly from 'commercial transactions' or 'gifts', which bond their participants proportionately to the value of what is being exchanged. With 'contributions', things are exactly the opposite: their success and capacity to weave social relationships depends on the very minimization of the contribution itself. So 'quick questions' appear as a particular instance of 'contributions', oriented towards tensions which are characteristic of highly connected organizations in which reactivity and adaptability requirements are high, both for the organization itself and for its members. For this pushes towards an increased fragmentation and distribution of work and reliance on cooperation with colleagues, thereby occasioning many potential demands on time-pressured professionals, which could become intrusive and be construed as 'ritual offenses' if done improperly.

Social media amplify such a tension, causing a dilemma. Because they make the work community aware of the state of connectedness of its members, they constitute a resource for the development of strongly distributed collaborative activities between spatially separated participants. Members increasingly organize their own tasks with the idea that they will benefit from the attention, knowledge and support of others almost in real time. However, when they do this, members run the risk of turning their colleagues into instruments, that is, kinds of knowledge affordances in the workplace, infringing on the latter's autonomy by exploiting their connectedness as a form of availability. They also risk making too many requests, putting a form of pressure on the recipients, since refusals, which are dispreferred responses, are usually done at the expense of a significant amount of interactional work (Kitzinger and Frith, 1999). Precisely because of their 'contributive' and minimal character, 'quick questions' offer a partial way out of this dilemma. The development of forms of cooperation based on them, and more generally 'contributions', articulate prescribed work and real work ('travail prescrit' and 'travail réel'), the meeting of organizational goals, and social networking in original ways, which may be characteristic of the moral economy of modern, highly connected and knowledge-intensive organizations.

# **Funding**

Part of this research was funded by the Agence Nationale pour la Recherche (ANR) in the frame of the project "Ecologie et Politiques de l'Ecriture".

### **Notes**

- 1. We would like to thank one anonymous reviewer for the precision and depth of her/his comments.
- In both firms there is a global IM directory, but each member can constitute a personal 'professional buddy list' for those he is closer to. When one member of the list connects, one gets a small notification in a pop-up window.

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