Openings in technology-mediated business meetings

ABSTRACT

The prerequisites for opening a meeting, or beginning any kind of interaction for that matter, are participants’ presence and shared orientation towards the situation at hand. This paper analyses how the initial moments of technology-mediated business meetings involving distributed work groups are organized sequentially and multimodally. Drawing on video-recorded meetings in an international company, it documents the multimodal practices used in the process of establishing co-orientation to the shared meeting space and achieving entry into the meeting. The analysis shows that the stepwise unfolding of the opening phase requires the coordination of verbal and bodily conducts as well as the affordances of the technological artifacts utilized. The study contributes to a growing body of research investigating the emergent, collective and multimodal accomplishment of activities in workplace meetings.

Keywords: workplace meetings, technology mediated interaction, conversation analysis, multimodal practices
1 INTRODUCTION

The work of organizations today involves the use of technologies to enable communication over distances. To understand how the use of communication technologies impacts practices of communication and changes organizational culture, there is a need to study how participants organize their activities utilizing available linguistic and interactional resources and the affordances of the technological artefacts used. This study analyses the opening sequences of technology-mediated business meetings between co-located and distant participants in an international company. The opening phases are a key locus for investigating the organization of meetings, since they reveal both the prospective course of the whole encounter and the social organization of the participants (see e.g. Boden 1994). Earlier studies highlight common patterns in the opening phases of meeting interactions in diverse cultural and organisational contexts (e.g. Bargiela-Chiappini & Harris, 1997; Chan, 2008; Nielsen, 2013). However, detailed studies of the emergent accomplishment of the transition into openings in technology-mediated meetings are still scarce. In a study of quasi-synchronous chat-based meetings Markman (2009) shows that additional interactional work is required to establish co-presence and achieve shared orientation in the virtual space where the activities of the meeting take place. Focusing on synchronous meetings conducted via technology, this paper describes how geographically distributed participants establish co-presence and negotiate a stepwise transition into the meeting proper.
The data for this study come from technology-mediated business meetings in an international company that uses English as a lingua franca. The meetings involve at least two groups of participants, typically two or more teams located in offices in different European countries, who are engaged in communicating in a ‘live meeting’ format. The meetings were carried out using live audio-connection and simultaneous viewing of shared documents. The data were collected in one of the company's offices, which enables detailed analysis of the audible verbal practices of all participants and a rich array of multimodal practices in one physical location. While the analysts’ perspective on the situations is unavoidably restricted, it is close to that of the local participants, who are faced with the challenge of establishing and maintaining co-presence with distant participants across a visual barrier (Wasson 2006) and without access to the full range of communicative resources used. The meetings can be characterized as formal in that they are goal-oriented, have been arranged beforehand, follow a written agenda and involve invited participants who have some perceived organisational role (see e.g. Boden, 1994; Clifton, 2008; Asmuss & Svennevig, 2009; Nielsen, 2009, 2013). They take place in a room containing technology for video conferencing as well as other physical structures typical of meeting rooms. The analysis shows how the transition into business talk is achieved multimodally through coordination of verbal and bodily conducts as well as the affordances of the technological artifacts utilized. The participants draw on the communicative affordances and multiple modalities available in the setting to achieve the transition from activities in the physical (i.e. local) space to the shared
meeting space as a prerequisite for initiating the meeting. The procedures for establishing co-orientation and accomplishing activity shifts are contingent to contextual features of the technology mediated setting, in particular the need to manage and coordinate participation across parallel interactional spaces. In the local space, visual monitoring and bodily as well as verbal orientation to written documents displayed on the screen emerge as key resources for establishing co-orientation to the shared meeting space and achieving entry into the business of the meeting. The study contributes to earlier research by shedding light on the interactional ecology of distributed meetings.

2 SOCIAL INTERACTION IN MEETINGS

Within the broader context of institutional and organizational discourse, meetings have been studied from pragmatic, discourse analytic and interactional perspectives. Topics analysed include participants' roles and identities (see e.g. Angouri, 2010; Angouri & Marra, 2011; Holmes & Marra, 2004; Schnurr, 2011; Halvorsen & Sarangi, 2015), gender (Mullany, 2004; Holmes & Shnurr, 2006), the use of humour (Holmes & Marra, 2002; Rogerson-Revell, 2007; Schnurr, 2009), politeness (Holmes & Stubbe, 2003, Holmes et al., 2012) and intercultural communication processes in meeting talk (e.g. Louhiala-Salminen & Kankaanranta, 2005; Poncini, 2004; Spencer-Oatey & Xing, 2005). Recently a growing number of studies have documented how the interaction order of meetings is accomplished at the microlevel through coordination of verbal, embodied and other multimodal resources (see
Attention has been paid to the social and structural organisation of meetings (Boden, 1994; Asmuss, 2008; Ford 2008, Mirivel & Tracy, 2005; Nielsen, 2013), topic organisation and the role of the agenda in it (Barnes, 2007; Svennevig, 2012), the accomplishment of transitions (Atkinson et al., 1978; Deppermann et al., 2010), practices of decision making (Boden, 1994; Huisman, 2001), alignment and community building (Kangasharju, 1996, 2002; Nielsen, 2012) as well as management style and leadership (Schmitt, 2006; Clifton, 2006; Nielsen, 2009; Svennevig, 2012). Yet, so far only a handful of studies have systematically described how embodied resources, such as body movement, posture and gaze, and the embodied orientation to written documents and physical objects contribute to the joint accomplishment of different activities in meetings (Deppermann et al., 2010; Ford & Stickle, 2012; Markaki & Mondada, 2012; Mondada, 2007, Nevile et al., 2014; Nielsen, 2013).

The organizational features of technology-mediated meetings involving distributed teams have not yet been extensively studied. Halbe (2012) observed that more interruptions and overlaps occur in face-to-face meetings than teleconferences and that meeting openings and closings seemed more abrupt in the latter. Markman (2009) found that openings in quasi-synchronous chat meetings between virtual teams are less straightforward than they often are in face-to-face settings: achieving co-orientation required additional interactional work as participants were not able to monitor the ongoing progress of turns. The opening process could also be easily
“derailed” due to interruptions. Other studies of technology-mediated work environments demonstrate how the affordances of technologies impact the organisation of participation and communicative activity (e.g. Heath & Luff, 2000; Hutchby, 2001, 2014).

A fundamental feature of technology-mediated meetings is that they involve multiple interactional spaces which all have separate participant structures (Wasson, 2006: 108). Participants display their orientation to the local physical space as well as the virtual meeting space and additional spaces through details of their conduct. Multimodal conversation analysis (see e.g. Deppermann et al., 2010; Markaki & Mondada, 2012; Mondada, 2011; Mondada, 2009) enables detailed description of the ways in which participants in distributed locations orient to multiple spaces, accomplish transitions from one space to another and achieve co-orientation to the shared, technologically mediated meeting space as a prerequisite for engaging with the organizational tasks. It also provides a framework for examining how the participants’ techniques for achieving and maintaining shared orientation are sensitive to contextual affordances, for instance whether the participants can rely on both visual and auditory contact for mutual monitoring or not.
Although opening sequences have been studied widely in Conversation Analysis (e.g. Schegloff, 1968, 1979; Schegloff & Sacks, 1973; Button, 1987), openings of business meetings have not yet been extensively studied. Following Boden (1994: 90), meeting openings can be characterized as structured sequences during which participants gain a local meeting membership and concurrently orient themselves to a “meeting mode”. Nielsen (2013) describes how the opening constitutes a shift from the interaction format of multiparty conversation, based on local negotiation of turn-taking, into the speech exchange system of the meeting, where the chair has a pivotal role. Studies of face-to-face meetings show how the shift from informal talk to the meeting proper is accomplished in a stepwise manner through a number of verbal and nonverbal techniques. The opening of a meeting is frequently preceded by a spate of multiparty talk (Boden, 1994; Bargiela-Chappini & Harris, 1997; Chan, 2008; Nielsen, 2013). This may involve different types of pre-meeting sequences which have different functions (Mirivel & Tracy, 2005). During this phase the participants may display readiness to open the meeting and verbalise that the conditions for initiating the opening are met. Other key steps in the opening process include the chairman’s opening techniques (e.g. boundary marker, summons), a pause during which the floor is open, and another possible chair’s technique for opening (e.g. explicit meeting opener; proposal or declaration to get started), after which the first speaker is selected (self-selection or other-selection by the chair) and the first topic is introduced (Nielsen, 2013: 56–57).
A recent study of chat-based virtual team meetings (Markman, 2009) describes a two-stage process for opening meetings. In the asynchronous chat meetings an opening move, typically a so-prefaced turn which referenced prior communication by the team, was followed by an agenda-setting turn which focused talk on a specific topic. While implementing the two-stage process of opening, the participants were found to orient to interactional practices found in face-to-face meetings. For example, it was found that reaching a critical mass of participants was a precondition for beginning the opening process (Markman, 2009: 155–156). Similarly, the first turn in the meeting shared features with meeting openers identified in earlier studies (e.g. Boden, 1994; Bargiela-Chiappini & Harris, 1997). Significant differences were also found. While turns commenting on the critical mass of participants in face-to-face meetings create a space for the opening in the next turn, in the quasi-synchronous meetings of virtual teams, “stage 1 turns marked only the transition into a possible opening sequence and further work was needed to focus the team’s attention” (Markman, 2009: 156). Also the role of silence was different. In the chat environment silences can be due to a number of factors, including features of the technology and the participants’ engagement in other activities. Silences were therefore often ambiguous and additional work was required from the participants to disambiguate situations involving nonresponses (Markman, 2009: 159). The findings highlight the way that constraints of the chat environment impact the development of the opening process. This study adds to earlier work by describing how the opening process is
shaped by contextual features of synchronous technology mediated meetings in which the participants have shared access to the meeting agenda, but do not have visual access to each other.

Recently increasing attention has been paid to the way that transitions between different phases of meeting talk are accomplished through different modalities. For example, Nielsen (2013) describes how gaze is used to signal withdrawal from pre-meeting talk and display readiness for meeting talk. Svennevig (2012) shows how topic introductions are accomplished multimodally through verbal references, gaze, gestures and embodied orientation to the written agenda (see also Mirivel & Tracy, 2005). Mikkola & Lehtinen’s (2014) study of performance appraisal demonstrates how written documents as material objects are used in a step-by-step embodied negotiation of activity shifts. A case study by Deppermann, Mondada & Schmitt (2010) describes the detailed procedures through which participants manage a time-out from meeting-talk and back to work talk. Recent studies of other types of institutional settings further highlight the role that written documents have in establishing a shared focus of attention and securing participation in the task at hand (Svinhufvud & Vehviläinen, 2013; Mikkola & Lehtinen, 2014). In the analysis that follows, we describe how the transition from a pre-meeting phase to the meeting proper is achieved in meetings between co-located and distant colleagues and teams conducted via live-technology.
4 DATA AND METHOD

The data for the current study come from interactions of a large international corporation, where English is used as a lingua franca and modern communication technologies are applied to meet with the demands and deadlines of the fast-paced global working environment. Within the target company, traditional face-to-face meetings have become a scarcity whereas distant meetings are promoted as the new format. The data collection took place in two phases in 2012 and 2013 in one of the company’s offices in Central Europe. Participant observation on site was carried out to get to know the company’s meeting practices in their natural surroundings, and thus set the basis for conducting a more detailed analysis based on video-recorded meetings. The video data were collected using either one or two video-cameras as well as audio recording devices. Additional information that might not be captured by the cameras was written down manually in field notes. The participants come from different linguistic backgrounds and for all of them English was a second language. All participants gave their consent to being recorded. Their identities and the name of the corporation are protected by using pseudonyms in the transcribed extracts.

The data for this article consists of ten distant meetings which are formal in a sense that they all had a specific time, place and agenda, and only specific people were invited to attend them. The number of participants ranged from two to over twenty, and the largest meeting involved four teams distributed in four geographical
locations. The software used was Microsoft Live, which enables live audio and video connection and sharing the agenda or outline of the meeting for all parties. It was the participants’ choice to conduct the meetings via audioconnection and to use the software to enable simultaneous viewing of documents that are open on the participants’ computers. The technology allows regulating sound and thereby controlling the distant participants’ access to talk outside the meeting proper, but this function was not used. In spite of the visual barrier between the interactional spaces (Wasson 2006), the participants were thus potentially present for each other via audio connection throughout the meeting. In most of the meetings a written agenda was displayed on the participants’ own computer screens and in meetings involving a large number of participants, it was projected on a wide screen on the wall.

The analysis builds on the growing body of studies applying Conversation Analysis to the study of organising properties of meetings (see e.g. Asmuss & Svennevig, 2009; Cooren & Taylor, 1997; Clifton, 2006; Deppermann et al., 2010; Nielsen, 2009, 2013; Svennevig, 2012) and technology-mediated interaction (see e.g. Hutchby, 2001, Arminen, 2005). Interaction in any setting is viewed as a sequentially organized multimodal process, which relies on resources of the body and the communicative affordances of the material setting, including written materials and technological artifacts located and used in the interactional setting (Hutchby, 2014). The analysis shows how the participants draw on different modalities and the affordances of the technology utilized in managing stepwise entry in to the shared
meeting space and initiating the meeting proper. Section 5.1 describes how the participants establish co-presence and organise the distributed participation framework. In section 5.2 we show how the entry into the business of the meeting is achieved.

5 FROM COMMUNICATING ONE’S PRESENCE TO MEETING TALK

5.1 Organizing distributed participation framework

The achievement of mutual orientation and co-presence within an interactional space depends on indicators by means of which participants perceive and know about each other’s presence (cf. Goffman, 1967; Kendon, 1990; Hausendorf, 2012) and it has to be interactively achieved. For the participants in distant meetings, establishing co-orientation presents a practical problem: the distributed participation framework must be organized both technically and verbally at the beginning of each encounter. Even though the attendees can see in the participant list on the screen when someone enters the meeting, they still need to assemble in a technology-mediated meeting space and jointly “talk the workgroup into being”. This involves interactional efforts to establish co-orientation, i.e. mutual orientation to an interactional space (Mondada, 2009) where the participants are in one another’s immediate presence. Establishing, managing and maintaining co-orientation is a condition for accomplishment of local tasks such as those required to open the meeting. How this is done and what kind of interactional work is required is contingent on contextual factors: the number of
attendees, the organisation of the participants in physical and/or virtual spaces and the affordances of the technology.

Meetings typically start after a critical mass of participants has been determined to have been reached (Boden, 1994; Markman, 2009). Establishing the critical mass in the data involved multiple resources: embodied orientation to the computer screen or wide screen, checking the participant list, verbal utterances commenting on attendance and check-in greetings. The first example comes from a kick-off meeting where the manager Hans has called in other managers in order to introduce a new procedure. Marja and Hans are the local participants sitting around the same table opposite each other, both with laptops in front of them, whereas six other people attend the meeting from other locations. The participants do not see each other, but everyone has visual access to the written agenda which is controlled by Hans. The agenda is also displayed on a large screen in the meeting room.

Example 1

1  Hans  ((gazes to large screen; clicks on list of participants))
2        ((Marja closes her laptop, puts water bottle on table and turns gaze towards screen)) Fig. 1
3               ((4.0))
4  Armando  hello (.) good morning,
5  Johannes  good morning

Figure 1: Hans and Marja gaze towards large screen
6 Annette   good morning
7 Hannu   morning
8             (1.1)
9 Hans      can somebody confirm that ohm(.) it works all fine

              [ ((gaze to laptop screen ^-- >))]
10              <with the> the voice and so on (0.2) kind of trying
11              at least for me a new concept here so:,
12              ((smiles, shifts gaze towards Marja, then to large screen))

Fig. 2 & 3

13 Marja  m(h)m(h)m
14 Johannes  yeah we can hear [you loud and clear and an-

              [((Hans turns gaze to laptop screen ^-- >))]}
15 Hans    gre[at
16 Johannes  [se- [see your presentation
17              [((Marja shifts gaze to large screen ^-- >))]
18 Hans    great(.) good
19              (0.7)
20 Hans    so Rudolf is joining as well
((Lines omitted))

((Marja gazes at large screen))  * * * >>

22 Hans  so: I [guess everybody's in the meeting now (.)

23  [((Hans turns gaze towards large screen))  * * * >> Fig. 4

24  good morning everybody,

25  (2.7)

26 Hans  I'm actually sitting here together with Marja

and we have [---]

After some initial remarks by the two local participants, Hans fixes his gaze on the large screen and clicks the list of participants to check who has joined the meeting (line 1). While he is monitoring the screen, Marja closes the cover of her laptop, places a water bottle that she is holding on the table and shifts her focus towards the meeting space by adjusting her body position and directing her gaze towards the screen (Fig. 1). In lines 4–7 four distant participants make their presence known with short greetings which serve as “check-ins” or displays of mutual surveillance (Goffman, 1967). These do not get a response from Hans, who keeps his gaze focused on the screen. After the silence during which both the co-located participants attend to the screen, Hans initiates a meeting preparatory sequence to
check the audio-connection. While producing the turn, he shifts his gaze from the large screen to his own laptop. His request is followed by a verbal account referring to his lack of experience with the new technology (lines 9–11). On completion of the turn, a shift in the participation framework occurs as Hans momentarily raises his gaze from the screen of his laptop and smiles at his local colleague Marja (Fig. 2), who reciprocates with a smile and quiet, but audible chuckle (line 13). After this brief affiliative sequence, Hans shifts his gaze back to the large screen and waits for a response (Fig. 3). Johannes responds on behalf of the distant team (‘we’) and confirms not only the audio connection but also visual access to the document displayed on the screen (lines 14 and 16). While J’s turn is still in progress, Hans responds with a sequence closing assessment (line 15), followed by two more assessments after Johannes completes his turn (line 18). Although most participants are now present and the technical connection has been confirmed, Hans is not yet ready to launch the meeting. During a silence of 0.7 seconds he monitors the screen again and comments on the presence of Rudolf (line 20) whose name has appeared on the participant list. This is followed by another silence and a further preparatory sequence in which Hans seeks the other participants’ permission for the recording (lines omitted). After this Hans produces a so-prefaced turn which establishes that the critical mass has been reached (line 22) and opens the meeting with a collective greeting (line 24). While performing the greeting, he also shifts his gaze and body towards the large screen (Fig. 4). He gazes at the screen silently for a while, providing the others an opportunity for response (line 25). However, as no responses
are offered, Hans continues with a turn in which he makes Marja’s participation in the meeting officially known to the others and proceeds to introduce the first topic (line 26), thereby consolidating his role as the chair.

This excerpt shows how achieving the critical mass is done interactively through visual monitoring and checking of the list of participants on the screen as well as verbal check-ins and comments that make the presence of incoming participants known to the others. A participation framework is established where Hans adopts the role of chair by taking control of turn-taking, addressing the others collectively and speaking on behalf of other participants. His situated identity is also confirmed by other participants as they “pass the opportunity to talk” (Nielsen, 2013) (e.g. lines 21, 25) and wait for Hans to initiate the next step. Both Hans’s and Marja’s embodied actions display their orientations to the two interactional spaces. Moving into engagement with the meeting space is marked by a shift of gaze to the large screen, which shows a power point presentation related to the meeting agenda. Embodied orientation to the large screen enables both the local participants to monitor the presence of distant participants and to display their attention to the written document as a way of showing readiness to begin the meeting proper. The local participants direct their gaze to the large screen at two key phases of the opening: during the initial monitoring and when moving into opening of the meeting (lines 23–24). Gaze and body orientation also enable the co-present participants to briefly disengage
from the meeting space and establish an interactional team to share an affiliative moment in the local space.

The next excerpt comes from a larger meeting involving a local group of 12 participants and three groups in other locations. The extract illustrates how steps in the transition towards the opening are achieved multimodally and shows how establishing the critical mass is done in a recipient designed way by addressing attendees as members of a category, in particular the national group. This way of addressing recipients has been found to occur in multinational meetings, where it enables the participants to make national categories locally relevant and thereby display specific kinds of expectations regarding the participants’ identity and expertise; their “rights and obligations to talk and to know” (Markaki & Mondada, 2012:31).

Prior to the opening process, local participants have walked into the meeting room and taken seats around a large table. The co-located participants do not have visual access to the distant participants, but all parties have visual access to the meeting agenda, which is displayed on a large screen at the front of the meeting room. The pre-meeting phase is characterized by several parallel conversations between some participants, while others remain silent and attend to their own activities (e.g. filling in the informed consent form). After some minutes of pre-meeting activity several participants begin to show readiness towards moving into the meeting. They
withdraw from talk and other engagement with co-located participants and wait in silence; some browse through papers in front of them. Five participants visibly orient to the agenda by turning their gaze towards the screen one-by-one. A distant participant is then heard to speak and two more participants shift their focus to the screen (lines 2–3; Fig. 5).

Example 2

1  ((multiple participants talk))

2  ? (° °)

3  ((two people turn gaze to screen)) Fig. 5

Figure 5: Two participants gaze towards screen

4  Dietmar  good morning gi:rls (. ohm,

5  Bruno  °£good [morning£°

6  [((gazes towards participants opposite him and then towards Marja; smiles)) Fig. 6 & 7
7 Dietmar [(verify) if you can hear me from Finland (0.3)
8 [((Hannu picks up loud speaker)) Fig. 8
9 Dietmar [can somebody confirm if you hear us
10 [((Hannu puts speaker back on the table)) Fig. 9
11
12 Hannu [yes we can hear
13 [((Hannu leans back)) Fig. 10
14 [((several people gaze at screen)) Fig. 11

Figure 6: Bruno gazes towards colleagues Figure 7: Bruno turns gaze towards Marja

Figure 8: Hannu picks up loud speaker Figure 9: Hannu puts speaker on the table

Figure 10: Hannu leans forward
15 Dietmar and everybody through here (.) okay
16 ((loud background noise from technological devices))
17 Dietmar do we have also (.) Italy and Netherlands group on board
18 (4.8) ((Marja flips over brochure on table)) Fig. 12
19 Dietmar (can't reach) (1.0) (or tries) Figure 11: Several participants gaze towards screen
19 Leonardo yeah we're currently on board (.)
21 we're just looking for the louder speakers but we are here
22 ? (so are we)
23 (1.0)
24 Dietmar (tack)
25 (1.8)
26 Dietmar then
The first verbal move towards entry into the meeting is performed by the chair, who is one of the distant participants. Dietmar makes his presence known with a check-in greeting (line 4), which is followed by a request for confirmation that the audio-connection works (lines 7–9). Dietmar’s turn accomplishes a shift towards the meeting proper by making relevant several identity categories. The check-in greeting is designed as humorous by using the gender category ‘girls’ collectively to addresses the other participants, even though there are several male participants present. Dietmar’s reference to his own location by mention of the country (line 7) invokes his situational identity as a distant participant and a representative of his group. At least two of the local participants respond by smiling (Bruno and Minna), but Bruno is the only one to respond verbally (line 5). The audio connection is poor, and while Dietmar’s turn is still in progress, Hannu orients to the disturbance by reaching towards the speaker on the table and picking it up. A silence of c. 4 second follows, during which Hannu attends to the speaker and places it back on the table. Only after this he leans forward and confirms verbally that the audio-connection works speaking on behalf of the group (line 12). With his actions Hannu establishes himself as a lead actor in the local group. Concurrently with his turn and immediately after, several participants turn their gaze to the agenda displayed on the screen and thereby show orientation to entry into the meeting (Fig. 11). After briefly addressing his local team (line 15) Dietmar requests confirmation that the remaining two teams are also present by referring to the countries where the teams are located (line 17).

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1 Bruno and Minna are clearly visible on the video. Both gaze at participants on the other side of the table, whose facial expressions were not captured on camera.
In this way he makes relevant those specific offices and groups for the business of opening the meeting and invites representatives of these groups to speak up. The lack of immediate response occasions an account where Dietmar seems to comment on trouble with establishing contact with the missing distant parties (line 19). After a delay of several seconds, the Italian and Dutch representatives respond and officially join the meeting (lines 20–22). Leonardo also accounts for the silence by referring to the team’s preparatory activities involving technology (searching for loud speakers) (line 21). With this utterance he conveys that although present, the team is not yet ready to start the meeting. After a short silence, Dietmar thanks them in Swedish, which playfully alludes to the Swedish-Finnish environment he is currently visiting and at the same time marks the sequence closed.

Similarly to the first example the chair establishes his role at the very beginning by taking control of the turn taking in the shared meeting space. However, here Dietmar requests confirmation from all parties separately. Instead of addressing individuals he uses categorization to refer to a specific group or location of participants. A multimodal analysis of the co-located participants shows how they shift from parallel conversations and other activities to the meeting space by withdrawing from talk and shifting their gaze to the large screen on which the agenda is displayed. Participants orient to the affordances of technology with their bodies. For instance, one participant manipulates the loud speaker before verbally confirming the team’s presence. A verbal comment from another distant group (line 21) shows that
activities involving technology are in progress in other locations too and may be used to account for the time lapse before responding to the chair’s turns. Embodied orientation to and manipulation of technological objects is thus made accountable in the interaction. Co-located participants also respond to problems with the audio connection: several participants display troubled facial expressions in response to loud noise (line 16) and one of them moves an object next to the microphone (Fig. 12). These silent activities take place at the shared physical space and do not interfere with the virtual meeting space. The distributed participation framework gets established when the last team leader’s confirmation of the team’s presence in the meeting space is verbally acknowledged by the chair (line 24).

The next extract is from a semi-regular update meeting in which Joonas and Walter are the local participants and Vilma and Fred are expected to attend distantly from Finland and the Netherlands. The co-located participants are using their individual laptops and do not have visual access to the distant participants. They are seated next to each other and both focus on the screen for the most part of the interaction. Moments before the episode begins, Joonas is seen to type something on his laptop. Prior to the extract the three male participants have been engaged in pre-meeting small talk while waiting for Vilma, having a good laugh about being filmed and teasing each with comments related to physical appearance.
Example 3

1. Walter but your beard grows not where (.) it’s supposed to grow he
2. [he]
3. Joonas [he he (.)) hey I was asking Vilma Lane that where is she and u::h she started to reply to me but uh then she went away so (.)
4. [le- let’s give her a second fo- ]
5. Walter [yeah she said in one minute she’s here] yeah
6. Joonas ((Joonas leans back)) *- - - > Fig. 13
7. I think she’s in (out) some other meeting
8. so let’s [wait a second more
9. ([((Joonas turns gaze to Walter’s screen)) *- - - > Fig. 14
10. Walter oh she’s now joining actually
11. Joonas ah [she’s now coming very good (0.6) ↑ah
12. (((Joonas shifts gaze to his own screen)) Fig. 15 * - - - >
13. (1.2)
14. Walter gut gut
15. Figure 13: Joonas leans back
16. Figure 14: Joonas turns gaze towards Walter’s screen
17. Figure 15: Joonas gazes at his screen
16   (1.3)
17   Fred   so um how do you treat Tina’s sister? In a good way?
18   Joonas  we- uh as we [treat Tina. £Very bad£.
19   (((Joonas turns gaze to Walter’s screen))
20   ((Walter laughs))
21   ((Joonas turns gaze to Walter and then his own screen))
22   Fred   okay (.) so is this because of her sister or why.
23   Joonas  eh- (((turns gaze to Walter)) Fig. 16
24   (1.0)
25   Vilma   ↑ hi
26   Joonas   (((leans over and turns gaze to W’s screen)) Fig. 17

In line 1 Walter extends the joking sequence by teasing Fred about his beard. After appreciating the joke with a laughing response, Joonas redirects the focus of talk by
addressing the absence of the fourth participant (Vilma) (line 3). The turn marks an abrupt shift from pre-meeting talk to meeting-preparatory talk (Mirivel & Tracy, 2005), which is also signaled by the use of ‘hey’ to mark a topically disjunctive turn. By topicalising the absent participant Joonas makes visible that he has been monitoring the screen for visual signals of her presence. He also assumes his institutional role by reporting his own prior interaction with Vilma (lines 3–4) and requesting that the others wait for her to join before proceeding (lines 5 and 8). In lines 5–6 the two local participants compete for a turn as Walter intervenes and offers his own, slightly more specific report of Vilma’s prior communication. Walter monitors his screen throughout, while Joonas monitors both his own and Walter’s screen (Fig.13 and 14). As soon as Vilma becomes visible as participant, Walter announces it verbally (line 11). The turn initial ‘oh’ orients to the sudden change in the situation signaled through the computer screen (cf. Heritage, 1984).

In lines 12 and 15 both Joonas and Walter comment on the visual signal of Vilma’s presence on the screen with positive assessments. Both monitor their own screens and wait for Vilma to check in verbally. As this does not happen, a silence ensues and the next step in the opening process is delayed. The silence is broken by Fred who initiates a new pre-meeting sequence with his question addressed to the two active participants, Walter and Joonas (line 17). Joonas responds with a humorous remark, which is appreciated by Walter with laughter (line 20). Fred’s second question, however, does not get a response, apart from a brief vocalization from
Joonas, who turns his gaze to Walter (Fig. 16). This action treats Fred’s turn as problematic, possibly both because of its content and its placement: it seeks to expand a pre-meeting sequence at a juncture where the other participants have shown orientation to proceed with the opening process. At this point Vilma finally checks in with a short greeting (line 25). During Vilma’s greeting, Joonas turns his head, leans slightly towards Walter and directs gaze to Walter’s screen (Fig. 17), possibly to seek visual confirmation of her presence. Fred and Walter both respond with reciprocal greetings, followed by Walter’s laughter. Joonas greets Vilma in Spanish, which further contributes to a jocular and informal tone. The greetings are followed by a silence, which marks a boundary before the next step in the opening process.

As in the preceding examples, the participants in this excerpt treat establishing the presence of all participants as a precondition for opening the meeting and engage in interactional work to accomplish this. This involves multiple, partly overlapping activities taking place in different interactional spaces: verbal references to the absent participant and prior engagement with them, visual monitoring of not just one’s own, but also a co-participant’s screen, and verbal turns that make the new participant’s presence public in the meeting space. Unlike Excerpts 1 and 2, the opening phase of this meeting is characterized by more equal participation and joint activity through which both local participants take an active role in making sure that

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2 The video data does not show the participants’ computer screen. However, it is clear from the recording and observational data that Walter is engaged in other activities (e.g. sending messages).
the step of achieving the critical mass is established publicly before any further action can be taken.

Establishing the distributed participation framework in distant meetings is constrained by the affordances of the technology and involves interactional procedures to establish shared orientation to the virtual meeting space and achieve co-presence. These procedures are contingent to specifics of the situation: the number of participants, their positioning in the physical space, the roles that they adopt and perform in the initial moments of the encounter and the affordances of the technology (e.g. the lack of visual access to distant participants). Achieving the critical mass is accomplished by monitoring the screen and verbal turns including check-ins, turns referring to absent participants and announcements making some party’s presence public to the others. The next section examines how participants proceed to the formal opening phase.

5.2 Achieving mutual orientation to agenda

Once co-presence of the relevant participants is established and the distributed participation framework is in place, the next step is to move to the meeting proper and shift from one turn-taking system to another (Nielsen, 2013: 40). Thus, what is required of meeting participants is co-orientation and shared focus on the meeting at hand (Goffman, 1963; Wasson, 2006; Goodwin, 2007) while the chair is commonly
expected to make verbal entry into agenda-related talk. This section analyses how the shift into agenda-related talk is accomplished.

The simplest instances of moving into agenda-related talk include silence from the participants' side and verbal initiation performed by the chair, e.g. use of a topic boundary marker (e.g. ‘uhm’, ‘okay’, ‘then’). Extract 4 begins at the final stages of a pre-meeting exchange. The chair, Hans, has received affirmative answers to his request for permission to record the meeting, but has asked for confirmation. In line 1 he gives the participants an opportunity to respond. When no one replies Hans initiates a shift to the formal opening of the meeting.

Example 4

1  [(2.0)

2  [((Hans leans to table, looks at his computer screen *--*-- >]

3  [((Marja gazes towards wide screen)) *--*-- > Fig. 18

4  Hans  good (0.3) [↑alright good

5  [((Hans corrects his posture))

6  (0.8)

7  Hans  uhm (.) what is it all about [it’s about purchasing in uh to
8 (((Marja turns gaze towards Hans))

*:---> Fig. 19

9 Hans into the management work er work shop (0.4)
10 and the respective stocks
11 I have been signing out the material
12 already the (.) by [end of- of last week (.)
13 (((Marja turns gaze to screen)) *-- >> Fig. 20

14 Hans don't know whether everybody had (.) has had a
15 chance to: to go through it (0.3) nevertheless this,
16 uh the topic [---]

During the silence at the beginning of the extract Hans leans forward gazing at the screen of his laptop and waits. Marja orients to the meeting space by gazing at the
large screen (Fig. 18). The silence is taken as confirmation that all participants agree to being recorded and after 2 seconds Hans marks the pre-beginning sequence closed with ‘good’ (line 4). After a short pause Hans continues with a clear boundary marker ‘alright good’ with a rising intonation. He also concomitantly corrects his posture, and thereby shows embodied orientation to the topic transition and prepares himself for agenda-related talk (i.e. getting to business). The pause that follows is not exploited by other participants, and Hans moves into meeting talk with a turn initial topic marker (‘uhm’, line 7) followed by a rhetorical question – answer sequence which announces the topic (lines 7–10). With this he secures himself a multiunit turn. At this point the other local participant, Marja, shifts her gaze from the screen towards Hans (Fig. 19) and signals her role as recipient of his talk. Hans’s turn continues with a reference to materials that he sent to the others prior to the meeting (lines 11–12). This way he implicitly makes relevant the retrospective-prospective aspect of the situation: i.e. “how we got here/where we are going” (Boden, 1994: 95).

Example 4 represents a transition type that is simple and unproblematic. The interactional space has been stabilized in the pre-beginning phase prior to the extract (cf. Mondada, 2009): the participants have established their engagement in the meeting at hand and Hans has adopted his role as the chair by taking control of the turn-taking (see Ex. 1). Hence, at this point it is expected of him to mark the beginning of the next section and move on with the agenda. The transition from pre-meeting talk to the meeting proper is achieved through bodily action as well as
verbal utterances. Gaze and a shift in body posture display orientation to the meeting space and readiness to entry into the business of the meeting. Distant participants contribute to the opening phase by “passing the opportunity to talk”³ (Nielsen, 2013) and Marja makes an additional display of attendance by looking at Hans. The entry into the meeting is accomplished smoothly and no extra work is needed to create or sustain mutual orientation.

However, even though the chair’s verbal initiation of agenda-related talk is a significant step in the transition, the temporal organization of bodily and other conducts of other participants is not always in line with it. In addition, the more there are parallel activities going on the more difficult they are to coordinate. The following example is from a bi-weekly update meeting in which the local participants, Dietmar, Marja and Hannu sit in a triangular shape and 15 distant participants attend from 6 different locations. The manager Dietmar controls the agenda that is displayed on the screen of laptops placed in front of each local participant.

Example 5

1          
[((Marja tapping her phone))

2          
[((Hannu clicking mouse))------ >* Fig. 21

Figure 21: Marja handles phone

³ Since the videorecordings were made in one office only, it is not possible to examine the embodied or other conduct of the distant participants.
Dietmar: o:kay (. ) meeting as recorded (0.5) o:hm, after we started up
though (0.3) for those (0.2) ohm, welcome to the meeting (. )
ohm (. ) for (x) (. ) o:hm

Dietmar: I think I uploaded the meeting minutes to the: (. ) workspace
any comments (. ) any com↑plaints?

Dietmar: changes?

Dietmar: [not the case [<so let's get on::>

Dietmar: [((Hannu turns gaze to screen)) * -- >> Fig. 23

Dietmar: [ohm,

Dietmar: [((Marja puts phone away; shifts gaze to screen)) Fig. 24

Dietmar: well (. ) it's a little bit nasty that we don't have those there

Dietmar: [((Marja starts writing)) *-- >> Fig. 25
Dietmar I skip one agenda point [which we will come back later on

Dietmar ohm,

Dietmar we had a discussion in management team

The extract begins at a point where the distributed participation framework has been established. However, two local participants, Marja and Hannu are still engaged in other activities (lines 1–2, Fig. 21). Dietmar indicates a shift to the imminent opening turn by welcoming those who joined the meeting late (lines 3–4). The distant participants’ co-orientation is established by silence (line 6), while Marja and Hannu are still occupied with their parallel activities. Dietmar proceeds to the next step by referring to the minutes of a prior meeting and asks for the participants’ reactions (line 8). The mildly humorous choice of ‘complaints’ in his turn marks any response from the co-participants as dispreferred. Nevertheless, the silence creates a space for initiating talk related to the minutes. As no response is offered, Dietmar creates another opportunity with an increment which asks for suggestions for ‘changes’. The utterance is produced with rising intonation, but again no response is offered.
Dietmar treats the silences as indicating acceptance of the minutes and a signal that he may proceed (line 13). Concurrently with Dietmar's transitional turn, Hannu first takes a relaxed position in his chair (Fig. 22) and then turns his gaze to his own computer screen in preparation for entry into the meeting (Fig. 23). It is only the chair's proposal to get started (line 13) that prompts Marja to finally cease other activities and show orientation to the meeting space by gazing towards the screen (Fig. 24). This occurs simultaneously to the pre-initial 'ohm' by Dietmar which marks another step towards the opening (line 15). Dietmar’s next turn makes relevant matters in hand by commenting on a problem related to the materials for the meeting (line 17). At this point Marja starts taking notes (Fig. 25). Entry into the meeting proper is achieved with Dietmar's verbal comment on the agenda (line 19) and his actions with the mouse (line 20): Dietmar visibly moves on to the next item in the agenda just before marking the boundary verbally. After another pre-initial ‘ohm’, he verbally establishes the next item as the current topic.

In the extract the local participants’ co-orientation and the transition towards the meeting proper evolves progressively through verbal and bodily conduct. The chair's verbal actions mark clear steps towards the business of the meeting and utilize similar resources as identified in earlier studies to accomplish these steps (boundary markers; reference to the minutes and agenda). Scrolling down the agenda using the mouse serves as a further mediated resource that indicates an activity shift and facilitates co-orientation of the distant participants. The local participants shift their
orientation towards the opening by ceasing other activities, changing body posture, gazing at the screen and beginning to take notes. Compared to the previous example, the opening phase is more complex: it is longer and involves multiple steps, which are sensitive to the fluidity of the interactional space (i.e. the meeting space) caused by the large number of distant participants and engagement with other activities. Whereas distant participants publicly signal their readiness to proceed via silence, local participants’ shift in focus is achieved via temporally bounded bodily conducts that do not occur simultaneously or in a similar manner. However, a clear turning point is where Marja finally gazes at the screen and indicates that she is finished with multitasking. A crucial part of the transition itself is the chair’s use of the written agenda as a resource for accomplishing a topic and activity shift. A similar phenomenon of using material objects as interactional resources have also been found in face-to-face meetings where written documents have been used to secure participation and draw attention (e.g. Nielsen, 2012, 2013; Mirivel & Tracy, 2005; Mikkola & Lehtinen, 2014; Mondada, 2006; Svennevig, 2012). Here the chair’s visible scrolling on the agenda mediated through the screen works to secure participation of the distant participants specifically, as the focus shifts visibly to the business of the meeting.

The following extract further illustrates how the other participants orient to the chair’s verbal steps in the opening process through embodied conduct. In this case the chair, Dietmar, is a distant participant and the focus is on the twelve local
participants who are seated around a large oval table. The agenda is projected on a
large screen in front of the room by Hannu, the manager of the local team.

Example 6

1  Dietmar  [(tack)]

2  [(((Minna picks up mobile phone)) Fig. 26]

3  (1.8) ((people moving in chairs)) *--->

4  Dietmar  then

5  (1.5)  Figure 26: Minna picks up phone

6  Dietmar  some bullets and dots what [still will be going on as-

7  [(((Minna puts phone away)) Fig. 27]

8  ((five people turn gaze to wide screen)) Fig. 28

9  Dietmar  uh [lots of these ohm where ( x ) (0.5) ( x )

10 [(((Bruno touches loudspeaker and smiles)) Fig. 29 & 30]
and then I will, ( ) management team ( )

((Minna frowns; leans forward and rubs her forehead)) Fig. 31

ohm, we have probably: (0.5) one big topic

where we try to struggle where we try to improve

[but the current way seems to be

[((Bruno turns gaze to Minna))

((Minna whispers))

[< not as > (.) a decision not has

[(((Hannu points to microphone with a circular gesture)) Fig. 32

Figure 29: Bruno touches loudspeaker

Figure 30: Bruno smiles

Figure 31: Minna leans forward, rubs her forehead

Figure 32: Hannu points towards microphone
Line 1 marks the closing of the first phase of the opening: Dietmar uses Swedish to thank the others for confirming their presence. Simultaneously Minna picks up her mobile phone (Fig. 26), while some others shift their body positions slightly. Dietmar marks the next step with the boundary marker ‘then’ (line 4). All other participants pass the opportunity to talk. Dietmar achieves another step within the transition process by referring to the visually available features of agenda, ‘bullets and dots’ (line 6), that he has displayed on the large screen. The chair’s reference to the agenda attracts participants’ focus to the meeting space: concurrently with the end of Dietmar’s utterance, Minna puts the phone away (Fig. 27) and at least four people turn their gaze towards the screen (Fig. 28). However, a side episode within the local space emerges during the opening turn due to problems with the audio connection. This is first reacted to by Bruno who is about to have a sip of his beverage, yet
suddenly ceases from action. Bruno leans over to check the table microphone and then smiles meaningfully to the people sitting opposite (Fig. 29 & 30). Then also Minna can be seen to orient to the problem by frowning (Fig. 31). Soon Bruno, Hannu and Minna who are sitting next to each other begin to whisper and Hannu makes a pointing circular gesture towards the microphone (Fig. 32). However, the main activity (i.e. the opening) is not disturbed or further action taken to solve the problem. All three shift their attention quickly back to the meeting space, as they lean back and stop whispering (Fig. 33 & 34). Bruno briefly gazes at Marja (Fig. 34), who does not respond.

What makes the establishment of co-orientation difficult is the involvement of technology and people's embodied orientation towards it. Even though both local and distant participants indicate their readiness to move on via silence (lines 3, 5), there is still a lot going on in the local space: people are correcting their postures, reading documents and sipping beverages. The chair's reference to ‘bullets and dots’ gets some participants to cease other activities (e.g. Minna) and shift focus to the agenda on the screen, yet the problem of not hearing properly immediately causes a new series of parallel activities available only to those physically present: head turns, facial expressions, gestures and whispers. It is not until after Minna and Bruno quiet down and lean back one after the other that the general uneasiness also stops and all local participants can be seen to orient to the meeting at hand, and the interactional space for the meeting gets stabilized.
CONCLUDING REMARKS

With this article we aimed to shed new light on the multimodal accomplishment of distant meeting openings that are influenced by several participation frameworks and the use of technology. The analysis focused on two key stages in the opening process: the establishment of the distributed participation framework within a shared interactional space and the transition to meeting proper. Detailed analysis of the opening phases revealed characteristics that both support and add to previous findings, raising new questions for the study of interaction in meetings.

Similar to face-to-face meetings, opening phases of meetings conducted via communication technology progress in a stepwise manner (see Nielsen, 2013; Markman, 2009) and involve the use of multiple modalities. Achieving a critical mass is a prerequisite for opening the meeting (cf. Boden, 1994) and involves verbal and embodied procedures as well as bodily orientation to and use of technological artifacts. Participants in the local space monitor the screen for visual signs of distant participants joining in and verbally address the presence of other participants. In these meetings where the distributed participants did not have visual access to each other, verbal check-ins, references to absent participants and announcements that make some party’s presence public were key resources for establishing the critical mass prior to beginning the meeting proper.
Even though meetings are predesigned and thus, routinely predictable events, shifts between formal and informal talk and from one agenda item to another have to be accomplished with locally constructed means of interaction (cf. Deppermann et al., 2010). The analysis highlights how such shifts were managed by coordinating action in both the meeting space and local space. The techniques used to accomplish entry into the meeting proper were similar to those identified in earlier studies of face-to-face meetings: boundary markers, verbal announcements and references to the written agenda by the chair and different participant strategies, such as silence, looking at the screen and ceasing other activities. However, the ways in which verbal and embodied conducts are manifested in time and parallel interactional spaces were sensitive to contextual factors, including the technology used. For example, the chair’s embodied actions (e.g. scrolling down, Ex. 5) and verbal references (Ex. 6) that target visual features of the agenda serve as an efficient technique for attracting distributed participants’ attention to the official business of the meeting and coordinating entry into the next activity. In this regard the analysis both supports and extends earlier findings about the crucial role that written documents play in achieving the shift into meeting talk (cf. Svennevig 2012). On the other hand, problems with technology influence the opening process. Technical problems can prolong the opening process and disrupt its progress (cf. Markman 2009). Problems with the audio connection are oriented to by local participants and they occasion parallel activities in the local space creating fluidity in the participation framework. However, they are generally not made public to the distant participants. The
participants oriented to the primacy of the meeting space (cf. Boden, 1994) by conducting other activities quietly (e.g. whispering) and relying on embodied resources rather than verbal activity.

A significant difference between technologically mediated and face-to-face meetings is firstly, the way that people utilize and orient to the material surroundings, and secondly, the resources they use to show their focus to the meeting at hand. In instances where parties in the meeting cannot see each other it can be impossible to interpret where distant participants’ orientations lie at any given time. Thus, the chair’s activities designed to advance the opening process are based on the one hand on what he or she can hear, and on the other hand, what he or she can observe in the physical space or on the screen. While silences can be interpreted as compliance with the chair’s opening techniques (i.e. passing the opportunity to talk), they do not necessarily indicate that other participants are ready to begin the meeting as multiple activities may still be in progress in other interactional spaces. Such activities generally do not interfere with the shared meeting space, but they crucially shape the organisation of the local interactional space and may have bearing on the temporal organisation of the opening, e.g. cause accountable delays in responding. In fact especially in larger meetings, the participants rarely get visibly organized for the business of the meeting (e.g. via ceasing other activities or turning gaze to screen) at the same time or in a similar manner. However, entry into the
meeting proper is achieved in a coordinated way generally during the chair’s opening turn.

With this study we have shown how the affordances of the technology used figure in the opening process in distant meetings. Unlike face-to-face meetings, openings of distant meetings require additional interactional work from both the chair and participants. Central in this is the ability to manage and to coordinate multiple overlapping activities taking place in several parallel interactional spaces.
APPENDIX A. Transcription conventions

The excerpts are transcribed according to conventions developed by Gail Jefferson.

Multimodal details have been described according to conventions developed by Lorenza Mondada.

,                  intonation is continuing
.
↑                  rising intonation
↓                  falling intonation
[]                 overlapping talk
tha-               a cut-off word
what               word emphasis
>what<             speech pace that is quicker than the surrounding talk
<what>             speech pace that is slower than the surrounding talk
°what°             speech that is quieter than the surrounding talk
WHAT               speech that is louder than the surrounding talk
£what£             smiley voice
wh(h)a(h)t        laughingly uttered word
(what)             uncertain hearings
References


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