Changing participation in web conferencing: The shared computer screen as an online sales interaction resource

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Abstract: This article explores the increasing digitalization of workplace communication. Drawing on the material environment in a complex, technology-mediated workplace environment, the article investigates how remote sales interaction is constructed and managed by its participants. The data consist of web conferences conducted in Finland between a salesperson (SP) and a prospective customer (C). During the meeting, SP delivers a software solution demonstration on a shared computer screen on which only SP is able to take actions. Deploying the method of multimodal conversation analysis, the research focuses on how the shared computer screen is used as an interactional resource to achieve joint attention and to direct participants' focus during the sales meeting. First, the shared screen view is SP's resource; for instance, when SP describes the functionalities of the software, he/she recurrently uses deictic expressions and other linguistic means in combination with coordinated keyboard activity. Later, the shared screen view evolves into a medium for both participants' actions. The findings suggest that, as the negotiation gets closer to the context of the customer organization's business, C may use the screen as a vehicle for his/her own interactional purposes. Through a gradual growth in understanding of the software, C begins commenting on the screen view or guides SP's actions on the shared screen, enabling both a collaborative sales interaction and knowledge construction in a complex technological environment. Unlike previous studies on technology-supported institutional telephone interactions, SP's screen view in the present study is a resource shared by both the professional and the client. The study contributes both to the field of technology-mediated workplace studies as well as to the field of sales and marketing research.

## 1	Introduction

The world of work is rapidly changing. There are cultural changes, such as increasing workplace diversity, and practical changes caused by, for example, the accelerating digitalization of society. The ways in which people organize meetings constitute an example of a practical change. This paper reports on a study of a specific type of web conference: a business-to-business sales meeting conducted via telephone and complemented by a computer screen view that the salesperson shares with a potential customer.

When a salesperson meets with a prospective customer, one of his/her main goals is to co-create value for the customer. Value creation is understood to occur through a dialogue in which both the customer and the salesperson have active roles (Haas et al. 2012). An engaged customer shares more information about his/her business needs, allowing the salesperson to focus and adapt

the discussion in a way that is relevant for the customer. Moreover, an engaged customer tends to be more willing to continue a potential business collaboration. Accordingly, the need for a higher level of customer engagement has been acknowledged by both sales scholars and professional salespeople (Rapp et al. 2014).

From the salesperson's perspective, a new era of value-oriented selling requires higher levels of creativity, innovativeness, and interpersonal skills (Aarikka-Stenroos and Jaakkola 2012; Haas et al. 2012). Creating value requires the acquisition of in-depth knowledge about a customer's world and their specific situation (Vargo and Lusch 2008; Rapp et al. 2014). Updating knowledge in a dialogical interaction is a core requirement for a successful sales dialogue, whereby the buyer and seller jointly participate in the design and delivery of a value-providing commercial solution (Ballantyne and Varey 2006). Accordingly, current theory and business practice for business-to-business sales interactions are shifting from a transactional salesperson-centric process to a more collaborative and co-creative sales process approach (Dixon and Tanner 2012). Unfortunately, the marketing literature has mostly overlooked the micro-level interactional mechanisms that take place in the sales dialogue (Storbacka et al. 2016). However, marketing and sales researchers have recently focused an increasing amount of attention on interpersonal interactions to create value in the buyer-seller relationship (e.g. Baumann and Meunier-FitzHugh 2017). Our article contributes to this discussion from the conversation analytical point of view, focusing on a practical change in workplace communication driven by digitalization.

To ensure engagement and facilitate a customer's contributions in a face-to-face sales meeting, the salesperson may rely on the on-going conversation, which includes the customer's speech, embodied actions, and the overall negotiation atmosphere (Kaski et al. 2018). These days, however, sales interaction is—as are many other types of workplace communication—increasingly organized in technologically mediated environments in which participants either do not share a mutual visual connection or employ a video-mediated visual connection. From an interactional point of view, the context of a technology-mediated sales interaction adds complexity, as small customer cues—such as body orientation, gazes, and gestures—pass the salesperson undetected. Consequently, as verbal interactions and the use of technological resources play a key role in the digital sales environment, the emergence of technology-mediated sales encounters transforms the ways in which participants interact during sales dialogues.

In this article, we explore the organization of institutional interaction in a complex, technology-mediated environment, in which the connection between participants is organized via mobile phone and a shared computer screen. Our analysis demonstrates how participants draw on local material affordances during remote interaction and uncovers the novel interactional practices

participants use to co-create value in technology-mediated sales interactions. We are especially interested in how a shared computer screen is used as a medium of interaction in online sales demonstrations. Since the shared screen view is available simultaneously for both the salesperson and his/her customer, it is a crucial resource for both participants, even though only the salesperson is able to take actions on it.

First, our analysis investigates how the shared screen view functions as a medium for salesperson-initiated actions and how he draws on the material affordances that a computer keyboard provides. Second, the analysis explores how the customer's screen-related contributions become more substantial and reflect his/her growing understanding of the software being marketed. Finally, we discuss the effects these contributions have during the demonstration. We propose that the customer's demonstration of his/her understanding affects the on-going software demonstration in such a way that the participants' collaborative work may evolve. Furthermore, a customer's increasing understanding of the software eventually changes the shared screen from a salesperson's resource to a joint resource, thus enabling value co-creation. Through our empirical findings, we aim to discuss with marketing and management research – especially with regard to value creation and knowledge construction in sales interaction – to build bridges between different epistemologies of sales interaction. We also aim to show how the findings of conversation analysis may provide new ideas for the development of salesperson-customer interaction practices.

2   Data and method

The data consist of six web conferences (totalling 6 hours 25 minutes) between a salesperson and a prospective customer in Finland. The salesperson represents a medium-sized company offering computer and mobile phone project management and employee work-time tracking software to other companies. The software is also created to help employees manage other work-related tasks, such as maintaining a driving log. The company, which we will call by the pseudonym TRACK, is marketing their software and related services to companies that operate primarily within the construction industry. The data recording took place in 2016 in TRACK's office space in the Helsinki metropolitan area. Before the recording, TRACK management granted permission for the data collection. The salesperson then signed an informed consent form to video record his computer screen as well as the customer interaction. During the web conference, he asked for, and obtained, the prospect's permission to record their conversation for research purposes.

The salesperson called the prospect at a mutually agreed upon time. Before the call, the salesperson had sent the customer an e-mail link that he/she could use to establish a connection to the screen share. In the same e-mail, the salesperson also asked the customer to download a TRACK mobile application that the customer could test during the telephone call. At the beginning of the telephone call, the salesperson asked the customer to follow the link in his/her e-mail and then used the shared computer screen to present a slideshow that he had prepared in advance. We video recorded the salesperson in front of his computer, thus securing reasonable access to what the salesperson was demonstrating on his computer screen at a given moment, and used a separate voice recorder to capture the telephone call. In addition to the shared computer screen, the salesperson used a laptop screen and a third computer screen to gain quick access to relevant information without disturbing the slideshow (Figure 1).
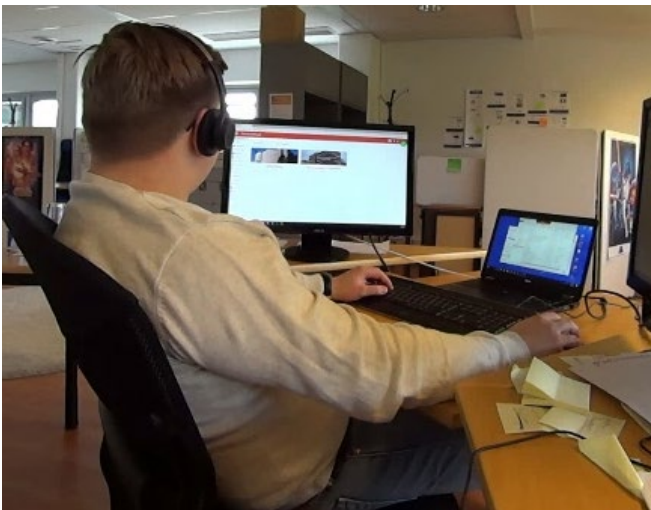

Figure 1. Salesperson with an earbud headphone in front of his computer screens. The shared computer screen is on the left.

The TRACK salesperson utilized the shared computer screen for two different demonstration purposes. Initially, the screen was used to present a slideshow that offered customers background information about TRACK, including the history of the company, the number of its current customers, and some business references. Furthermore, the slideshow discussed the ways in which TRACK's software can solve some of the most common problems within the construction industry, such as a lack of reliable work-time tracking and time-consuming invoicing for additional work. Later in the conversation, the salesperson utilized the shared computer screen to demonstrate the TRACK software. At the same time, the customer was asked to open the TRACK mobile application on his/her smart phone. The salesperson was then able to demonstrate the use of the

software on the shared computer screen, allowing the customer to follow the demonstration and test the mobile version of the software on his/her smart phone. Thus, the customer needed to follow two screens during the software presentation: the one shared by the salesperson, and the one on his/her own phone. Our analysis will focus on the demonstration phase, during which the salesperson used the shared computer screen to introduce the TRACK software to the customer. The examples we show are representative of the data and demonstrate illustrative cases of common phenomena in the data.

To analyse the data, we employed the method of conversation analysis (CA) complemented with observations of the salesperson's embodied actions. Relying on recordings of talk-in-interaction, CA studies interaction as a sequentially organized collaboration in which every turn-at-talk displays understanding of a prior utterance and projects appropriate next actions (e.g. Clift 2016; Schegloff 2007). Our study focuses on how the salesperson (henceforth SP) and the prospective customer (C) organize their activities, achieve co-orientation, and make use of the shared computer screen in negotiating mutual understanding. Even though the visual connection between the participants is lacking in our data, our analysis considers SP's embodied actions and the use of material resources in modifying the shared screen view, and thus multimodal conversation analysis (see e.g. Goodwin 2000; Heath and Luff 2012; Mondada 2008) is also a relevant approach for our study. The data were transcribed according to the conventions developed by Gail Jefferson (Atkinson and Heritage 1984, see appendix) and complemented with marks representing SP's computer activity (e.g. mouse clicks and cursor movement). Furthermore, we use still images from the video recordings to illustrate SP's crucial computer actions.

3 Material resources and knowledge construction in technologically supported interactions

Our analysis builds mainly on the research findings of conversation analytic studies, especially in technology-mediated institutional interaction. Thus, our study is closely connected to two research orientations in the field of conversation analysis: studies of technology-supported and -mediated workplace communication (e.g. Heath and Luff 2000; Luff et al. 2000; Luff and Heath 2000) and research on multiactivity in institutional interaction (i.e. Nishizaka 2014; Nielsen 2014, 2016; Mondada 2014a, 2008; Deppermann 2014). We consider the online sales interaction as a type of goal-oriented (institutional) interaction in which the participants engage simultaneously in multiple activities and exploit complex technological material. Since the material environment as a part of

remote sales interaction plays a crucial role in our study, we also build on CA research into social interaction in relation to the material and physical environment (Nevile et al. 2014), especially concerning institutional and organizational interaction (Mikkola and Lehtinen 2014; Nielsen 2014). In addition to conversation analytical studies, we draw on ideas of value co-creation discussed in prior marketing and management studies.

A TRACK salesperson's work environment includes a large array of different digital resources (demo environment, multiple screen views, mobile phone, etc.). He/she must manage complex multitasking activities in which computer-related actions (mouse clicks, cursor pointings, etc.) are resources required to deliver on-going interactional projects (Levy and Gardner 2012; Mondada 2008). A web conference with a shared screen view combines the technological workplace environment and a remote telephone call meeting; thus, SP must simultaneously manage the sales interaction via telephone and monitor and modify the online demonstration environment. Since the participants can't see each other, SP must put forth a greater interactional effort to manage the ongoing interaction (Oittinen and Piirainen-Marsh 2015; Markman 2009).

Previous studies on technologically-supported telephone call interactions have focused on how professionals working with a customer simultaneously manage local technology and a phone connection and how parallel activities are co-ordinated (Mondada 2008; Bowers and Martin 2000). Unlike these earlier studies, in which the screen view is primarily a professional's local resource, SP's screen view in our research setting is a resource shared virtually by both professional and client (cf. face-to-face interaction, Nishizaka 2014). In our remote interaction setting, achieving joint attention to the screen view is a prerequisite for successful interaction. However, this requires that SP use both linguistic means—such as referential practices (i.e. deictic expressions)—and keyboard or mouse actions (e.g. clicks and cursor pointing) to guide C's orientation on the screen. Several studies have shown that deictic practices are interactionally and socially constructed as well as indexically reflexive to ongoing activities (Hindmarsh and Heath 2000; Etelämäki 2009; Laury 1997). This provides a baseline for our analysis concerning referential practices in a specific interactional setting, in which deictic expressions typically occur sequentially, co-ordinated with keyboard actions. However, embodied actions have proven to be a crucial resource in the multimodal construction of referential practices, in achieving a mutual orientation (Hindmarsh and Heath 2000), and in co-constructing joint attention (Mondada 2014b; Goodwin 2007). Thus, our study offers a novel point of view concerning how keyboard and mouse activities in remote interactions are prioritized over embodied actions in a local ecology of the activities (see Mondada 2016) in this specific interactional context and the material affordances it provides. Thus, we argue that, in a context where drawing on embodied actions (such as pointing, which is typically produced

in a co-present interaction) is impossible, participants tend to intensify their use of keyboard activities to construct joint attention to a shared screen.

Since understanding and learning about the TRACK software is an issue central to our study, the broader concept of knowledge is also a crucial part of our theoretical background. Extant research in marketing and management emphasizes the importance of boundary-crossing knowledge sharing (e.g. Carlile 2004). As there are certain knowledge boundaries between the actors, dealing with the knowledge of different communities (domains) may cause misunderstandings. Such boundaries are often complex and dynamic (Geiger and Finch 2009) and may resist the construction of common understandings and meanings. In our study, while SP has a good technical understanding of his software solution, he usually does not know C's specific use context (especially daily activities and practices) or what C perceives to be important concerns. Only C knows what is valuable and meaningful for him/her—that is, which functionality of the software solution could help and add value to his/her daily work. At the same time, C knows little about the software solution that SP is going to demonstrate for him/her. Therefore, there is an evident knowledge boundary that participants need to resolve to develop a shared understanding. While the marketing and management literature deals with this problem, it does not provide us with an answer as to how boundary-crossing knowledge sharing is accomplished in an actual interaction, especially in a technology-mediated interaction. Therefore, we also need to look at the concept of knowledge from the perspective of conversation analysis.

Within conversation analysis, knowledge has been widely discussed in terms of how participants express and claim their relative levels of knowledge and epistemic rights to that knowledge through the design of their conversational turns (i.e. Heritage 2013; Stivers et al. 2011). As an activity type (Levinson 1992, 1979), the online sales demonstration calls for the participants to orient to mutual knowledge construction instead of individual knowledge representation. Therefore, in this article, we rely specifically on earlier studies of interactional means for displaying understanding in conversation through turn formulations (Koole 2010), especially through the use of discourse particles as "change-of-state tokens", such as *oh*, *ah* (in English Heritage 1984; in Finnish Koivisto 2015).

In addition to conversation analytical studies, we build on marketing literature, which emphasizes the importance of salespeople and customers building a shared common knowledge that enables the development of common understanding and co-creation of value. For example, Kaski et al. (2019) suggest that the salesperson needs to transform the customer's orientation from that of passive firm-centric participant to collaborative participant by facilitating new knowledge development and learning. Understanding the micro-processes through which this type of

knowledge transformation can be achieved in interactions would be both theoretically and practically valuable. Our analysis addresses this need by focusing on the gradual development of knowledge construction in remote sales interactions, uncovering the role of material affordances (e.g. keyboard activities) together with indexical language use (i.e. deictic expressions) in constructing situationally relevant knowledge and shared understanding in this specific sales environment.

4 The shared screen as an evolving resource during online sales interactions

It is imperative during the online sales interaction that the participants achieve and maintain joint attention to the shared computer screen. This joint attention is a prerequisite for SP in constructing a sales demonstration that is based on C's concrete software solution needs, thus creating possibilities for meaningful sales negotiation. However, as SP cannot see the customer, the auditory telephone connection is the only way that SP can monitor C's activities. Therefore, proof of joint attention relies primarily on those verbal turns of C that are oriented to the demonstration's shared screen view. Through these turns, SP may make inferences as to the most crucial features to focus on, as well as to how well C displays an understanding of the software solution and its operating logic. Thus, the shared screen view ultimately functions as a medium for participants' collaborative activities. However, the shared screen is at first used mostly by SP for his actions, as we will demonstrate in the next section.

4.1 The shared screen as a salesperson's resource

In our first excerpt, SP initiates a transition from a slideshow about the company and its services to a concrete service demonstration, which he will deliver using the shared computer screen. We join the conversation just after C has asked if the software makes it possible to attach an order number to a work order, with SP promising that they will return to the topic later. In all our excerpts, we have marked the target lines by highlighting the text in grey.

Excerpt 1. And the view is now like this

```
01 SP:     .hh mennääs tohon palveluun.
           Let us go to the service
02         (0.2)
03 C:      joo.
           yes
04 SP:     *eli tota,^ mä nyt (.) tämän suljen tästä*& ↑noin,      & Fig 2.
           so ehm I now (.) close this ((slideshow)) from here like that
05         (0.6)*(0.3)
06 SP:     ja näkymä on nyt* <tämännäköinen>? kunhan tämä [päivittyy.=
           and the view is now like this    once this will be updated
07 C:                                                     [joo.
                                                           yes
08 SP:     =pieni hetki.
           just a moment
09         (0.2)*(0.2)
09 SP:     .hh Joo eli tässä on nyt meijän tota (.)¤ & pääkäyttäjänäkymä?
           yes so here is now our ehm (.) main user view          &  Fig 3.

10 C:      joo:?
           yes
11 SP:     ja tota tää on testipalvelu eli eli tota täällä on aika paljon tavaraa
           and ehm this is a test service so there are quite a lot of things
12         täällä sivulla?
           here on the side ((scrolling the menu bar at left side))
12 SP:     niin ku huomaat.
           as you can see
13 C:      joo,
           yes
14 SP:     .hhh mutta lähtökohtasesti - -
           but in principle - -
```

To accomplish the transition from slideshow to service demonstration, SP draws on a so-called dialogic passive utterance (Makkonen-Craig 2005), *mennääs tohon palveluun*, 'let's go to the service' (line 1). This is uttered in a passive voice and lacks an overt subject. However, it proposes that the transition will be a joint action between SP and C. Furthermore, the enclitic particle -*s* in the verb form *mennääs* implies the beginning of a new but agenda-related activity (Raevaara 2006), or the next step in SP's sales presentation.

SP continues by explicating his embodied activity (*mä nyt tämän suljen tästä*, 'I now close this from here', line 4), an action which C cannot witness due to the fact that he cannot see the salesperson. While producing the deictic pronoun *tästä* ('here'), SP simultaneously clicks his mouse audibly, as illustrated in the following figure (Figure 2).

Figure 2. SP produces a mouse click simultaneously with deictic pronoun (line 04, 'I now (.) close this ((slideshow)) from here').

As is common in our data, SP describes the refreshed computer screen view in a rather vague way (*ja näkymä on nyt tämännäköinen*, 'and the view is now like this', line 6). This underscores the relevance of the shared screen as a medium of shared attention. That is, as the verbal explanation does not explicate it, one must have access to the screen to know what it looks like. Once the screen view has been refreshed, SP uses a *tässä on* ('here is', line 9) initiated utterance to introduce it to C as the main user view. Again, to fully understand the referent of deictic expression *tässä* ('here'), C needs to direct his attention to the shared screen. To emphasize the main user view, and to orient C's attention towards the shared computer screen, SP moves the cursor on the screen in a circular motion. C displays his access and understanding by producing the response *joo*, 'yes' (line 10), with a rising pitch contour that signals his readiness to hear more, and SP continues to discuss the screen view.

Mouse clicks and keyboard actions are indispensable resources for SP. Furthermore, in Excerpt 1, we saw how SP's computer activity is smoothly coordinated with his verbal turns (Zimmermann 1992; Mondada 2008) and is produced sequentially in relation to deictic expressions ('this', 'like this', lines 4, 6) that refer to the shared screen view (cf. Hindmarsh and Heath 2000). Thus the mouse clicks and keyboard activity serve interactional functions. This is especially clear in cases where SP uses a specific mouse movement (i.e. circular movement, see Figure 3) or when SP scrolls the menu bar to emphasize his verbal turn (*täällä on aika paljon tavaraa,* 'there are quite a lot of things here', line 11). We may conclude that the computer activity with different variations

(audible clicks, circular motions, scrolling) is an interactional resource that SP uses to guide C to scan the screen view and to focus on a specific point on it.

Figure 3. SP moves the cursor on the screen in a circular motion (line 9, 'so here is now our ehm (.) main user view').

In Excerpt 1, SP used the shared computer screen as a resource to demonstrate the software to C. This enabled him to delve into the details of the service without using detailed verbal accounts to describe what the software looks like in practice. The customer remained in a recipient position by producing minimal responses (lines 7, 10, 13), which nevertheless operated as cues for SP to determine if joint attention was sustained. Furthermore, we note that one of these responses was prompted by SP (*niin ku huomaat*, 'as you can see', line 12), which also indicates SP's intention to achieve awareness of the participants' joint attention. However, the shared screen was mainly a salesperson's resource for accomplishing actions. This is in line with an earlier phase of the sales call, during which the salesperson used the shared screen to provide background company information about TRACK. Also during that slideshow, the shared computer screen was a resource utilized by the salesperson, while the customer remained primarily in a recipient position.

4.2   Customer comments on the shared screen

Excerpt 1 demonstrated how the shared screen functions as a salesperson's resource. C remained in a listener's position, contributing to the talk with only minimal responses. In this section, we consider cases in which C adopts a more active role. We will argue that the more active role is the

result of C's growing understanding of, knowledge about, and interest in the software solution. A similar phenomenon was observed in a study of face-to-face sales meetings (Niemi and Pullins 2020; see also Timonen et al. in press).

Prior to the conversation shown in Excerpt 2, SP utilized the shared screen to demonstrate details of the software. As C acquires more information about the software, he becomes more active and begins to comment on the contents of the screen. Excerpt 2 demonstrates that these customer comments on the screen view can re-direct the salesperson's behaviour. In Excerpt 2, below, SP receives C's comments as an indication of a potential problem concerning how the functionalities of the service are visualized in the screen view.

Excerpt 2. Oh, it's there now

*=mouse click, left button
¤=mouse move, up and down
+=mouse move

```
55 SP4:   ja totanoinni, (0.6) sitte ku täällä seurataa vaikka tätä
          and ehm when we then follow for example this
56        työteh↑tävä-, (0.6) niinkun, (0.4) valikkoa?=ni täälähä
          work task ehm menu so here of course
57        sit voidaa lisätä* vaikka toi,* (0.4) .hhhh ↓toi tila?*
          we may add for example the .hhh the status ((of a task))
58        (1.0)
59 SP4:   .hhhh ja nyt me nähdään tuolta että toi yksi on suoritettu.
          .hhh and now we can see there that it is completed
60        (5.6)
61 C4:    mm::::::joo. (.) ni se on nyt tuola joo.
          mm:::::: yes so it's there now yes
62 SP4:   =joo. .hh et ↓mähän voin tuoda sen tästä,* (0.4) °ootappas
          yes .hh so I can of course bring it from here      wait
63        vähä jotta me saadaa tästä vähä järkevämpi°,****
          a second so that we'll get this to make a bit more sense
64        (2.8)
65 SP4:   nyt tää on ehkä vähä. (0.8) vähä loogisempi.
          now this is maybe a bit more logical
66        (0.6)
67 C4:    ↑niin nii et sen näkee ↑joo, (0.2) kyllä.
          yes yes so you can see it yeah right
68 SP4:   =mjoo. .hhhh ja, (0.2) ja sit totanoinni me voidaan ↑tuoda
          myeah .hhh and       and then ehm we can also make other things
69        esiin täältä* myös muita asioita? eli,(0.4) ↑liite↑* oli* se (.)
          visible from here              so attachment was the
70        mikä oli se teidän  työmääräin?¤¤¤
          what was your work order
71        (0.8)
72 SP4:   .hhhhhh ja sitte otetaa täältä vaikka kuva?*
          .hhhh and then let us pick for example a picture from here
73        (1.0)*
74 SP4:   ni tääl on sitte tää sinun ottama kuva.
          so here then is this picture taken by you
75        (1.0)
76 C4:    ↑joo.
          yes
```

```
77 SP4:   =eli toss+ ois niinku se et mitä on, (0.4) annettu ↑tehtäväksi
          so here would be like things that were given as a task
78        ja toss on se  että, (0.4) ton näkönen se on sit ku
          and here is                it looks like that when it is
79        valmis°tunu°.
          completed
80        (0.8)
81 C4:    joo.
          yes
```

At the beginning of Excerpt 2, SP describes how a user may follow the work tasks that have been added to the menu bar. SP's utterance has a final rising intonation (*toi tila?*, 'the status', line 57), reserving himself the floor to continue. Indeed, C does not take a turn to talk, even though there follows a gap (line 58), and shortly SP continues with a *ja* ('and') initiated continuation (line 59). However, there follows another gap (line 60). Because SP has now completed his utterance (see the falling intonation in *toi yksi on suoritettu*, 'it is completed', line 59), this extended gap may indicate a potential problem. This interpretation acquires more evidence since, before the confirming *yes*, C produces the turn-initial *mm*-particle in an extremely prolonged manner (*mm::::::*). This indicates that C is reserving a moment to process the given information and orient to the screen view. Then, after a short pause, C continues with the statement *nii se on nyt tuola joo* ('yes so it's there now yes', line 61), in which he deictically refers to the shared screen view.

SP's immediate response (line 62) indicates that he has picked up on C's dissatisfaction from his minimal cues: the extended gap before the response and the prolonged intonation while producing the turn-initial particle *mm*. SP now starts to modify the screen view to solve the possible problem. Again, he coordinates his screen view manipulation (i.e. clicks, moves) with deictic terms and key items concerning the solution (i.e. lines 62, 69, 70, 72; 'here', 'work order', 'picture'). While commenting on his ongoing activity, he first positions himself as an agent by saying *mähän voin tuoda sen tästä* ('I can of course bring it from here'). However, SP re-orients to the modification as a joint project in the same turn by shifting quickly to a *we*-mode; he formulates the turn with a *we*-pronoun (*jotta me saadaa tästä vähän järkevämpi*, 'so that we'll get this to make a bit more sense') and in this way explicitly positions both C and SP as beneficiaries of the action (cf. Couper-Kuhlen 2014). Through this formulation, by indicating that the screen view was initially unclear, SP conveys alignment with C's problem-indicative turn. Furthermore, the smooth co-ordination of the talk with mouse clicks and other mouse movements in modifying the screen view (cf. Levy and Gardner 2012) serves to create and manage a joint focus of attention both on the screen view and in performing the usability of the solution. In this excerpt, tailoring the screen view to C's expected needs—that is, making it 'more sensible and logical'—enables SP to create the possibility for C to understand the solution and its logic and in that way display its value for C.

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In contrast to Excerpt 1, Excerpt 2 illustrated a case in which an action related to the shared screen was prompted by C's problem-indicative turn. Although SP then delivered his talk without C's contributions (lines 62–66), the ongoing demonstration turned out to be collaborative, as evidenced by C's display of understanding later in the sequence. After a short gap, C initiates the turn with a reduplicated response particle (line 67, *niin niin,* 'yes yes') with remarkable intonation, which may be interpreted as a strong confirmation of SP's previous turn and action as well as evidence of a slight change in C's understanding (cf. Koivisto 2015; Heritage 1984). This change in understanding is evidenced in turn continuation, in which C elaborates on the content in the refreshed screen view after SP's modification (*et sen näkee*, 'so you can see it'). Furthermore, he finalizes the turn with turn-closing confirming particles produced with an upward intonation pattern (*joo kyllä*, 'yeah right'), which both emphasize the confirming turn and contribute to the display of a growing understanding at that very moment.

From SP's point of view, C's turn offers clear cues about C's current understanding of the solution, and serves as a proof for achieved joint attention. While demonstrating additional possibilities offered by the solution, SP again uses *we*-mode (*me voidaan tuoda esiin täältä myös muita asioita,* 'we can also make other things visible from here'; *otetaan täältä vaikka kuva*, 'let us pick for example a picture from here') to present the activity as a joint project, even if the agent of action is SP himself. Furthermore, SP tailors the demonstration to C by inserting a picture file that C has taken with his mobile phone during the demonstration to the shared screen view (*tääl on sitte tää sinun ottama kuva*, 'here then is this picture taken by you'). By embedding familiar elements into the shared screen and displaying their location with a deictic expression ('here') to achieve joint attention, SP makes the solution more approachable, and thus negotiates a potential knowledge boundary between the participants.

4.3   The shared screen as a customer resource

As demonstrated in Excerpt 2, C's contributions during the online demonstration become more significant in relation to his gradually increasing understanding and knowledge of the logic of the software. However, there is more to an online sales interaction accompanied by a shared computer screen. In this section, we focus on a sequence during the demonstration in which C's participation changes, becoming more facilitative and elaborative with regard to the ongoing online demonstration. Through these contributions, C's displays of understanding characterize the activity as a type of hands-on learning situation. Thus, the screen shared by SP has evolved from a

salesperson's resource to a shared customer resource. Excerpt 3 illustrates how C initiates a problem-solving sequence concerning a specific aspect of the software's functionality.

Excerpt 3. Press the task ((button)) now

*=mouse click, left button -> refreshed screen view
+=refreshed screen view

```
23 C6:    tää vaa sanoo et tallennettu ja sitte, (0.8) sit ku mä
          this only says that it is saved and then when I
24        valitsen täält ku alkaa valitsee tehtävää ni se ei niinku tapahu
          choose when one begins to choose a task so nothing
25        mitää* nyt mun täytyy uudestaa painaa pleitä.=eiku nyt
          happens now I have to press play again no wait now
26        se lähti* itse asias siit ajasta mikä,
          it started actually from that time point what
27 SP6:   ↑juu juu [et se,
          oh yes so it
28 C6:           [↑e:iku noo- eiku nol- eiku se ↑nollaantu se
                  no wait re- no re- no it reset the
29        aika. (0.2) ↑painappa nyt siit tehtävästä;
          time      ((you)) press the task ((button)) now
30        (0.4)
31 SP6:   njoo?*
          myeah
32 C6:    siit (.) siit sulta. (0.4) nii katotaa tekeeks se sul
          there there in your ((screen)) so we'll see if it does the
33        sama.
          same
34 SP6:   joo se ↑pysäyttää tän?
          yes it stops this
35        (0.4)
36 C6:    joo, (0.4) ja sit sinne alas tulee toi tallennettu ja
          yes and then over there down appears that it is saved and
37        nyt ku sä painat uudestaa pleitä* & vai käykö se kello siel   & Fig. 4a+b
          now when you press play again or does the watch run there
38        koko aja;
          all the time
39 SP6:   se on nelkytyks sekuntii;
          it's forty seconds
40        (0.6)+
41 C6:    mut nyt se nollaantu,
          but now it's reset
42 SP6:   jooh [se tulee siihe tö-,]
          yeah it goes to that wo-
43 C6:        [nyt se lähti alus-,]
                now it started from the beginning
44 SP6:   se tulee siihe työaikarivii.
          it will appear on the work time row
45        (1.0)
46 C6:    ↑aa joo joo nii >joo joo joo< just joo (.) o[kei.
          oh yes yes so yes yes yes right okay
```

In Excerpt 3, during the demonstration C uses the demo environment for testing on his own mobile phone. While testing, he notices a potential problem with the software's timing functionality, which

he reports to SP in a complaining tone (lines 23–25, *ku mä valitsen täält ku alkaa valitsee tehtävää ni se ei niiku tapahu mitää*, 'when I choose when one begins to choose a task so nothing happens'). First, C orients to his own mobile screen view and describes to SP the notification on the screen by referring to it with the *tää*-pronoun (line 23, *tää vaa sanoo et tallennettu*, 'this only says that saved'). Soon he re-orients, positioning himself as an agent who 'has to' press the button again (*nyt mun täytyy uudestaa painaa pleitä*, 'now I have to press play again'), which underlines the problem from C's point of view. During C's turn, SP immediately starts manipulating his own screen view (lines 25, 26) to comprehend C's problem. Meanwhile, C continues to struggle with the timing functionality issue, testing and simultaneously meta-commenting on the software's implicated actions (lines 25–26, 28, 'no wait now it started', 'no wait re- no re- no it reset the'). This type of activity is characteristic of the ongoing activity of typical hands-on learning situations in a technological environment.

After a short gap, C shifts his orientation towards the shared screen view, producing a directive turn (line 29, *painappa nyt siit tehtävästä*, 'press the task ((button)) now') in which he commands SP to test if the timing functionality works on the shared screen similar to the way that it works on C's mobile screen view (lines 32–33, *siit sulta nii katotaa tekeeks se sul sama*, 'there in your ((screen)) so we'll see if it does the same'). Again, deictic expressions ('there in your', 'over there') are crucial resources for directing the participants' attention to a specific point in the shared screen view. However, now the deictic expressions as part of C's contributive turn indicate that the screen has evolved into C's resource as well—a resource he can use to deliver his interactional projects. Furthermore, the imperative verb form in the second-person singular ('press'), together with a temporal expression ('now'), highlight the directive tone in C's turn. Through this turn formulation C positions himself as an active agent: participation changes in that moment, with C momentarily leading the demonstration to solve the potential system problem. SP complies with C's directive and presses the task button without delay, resulting in a visible change on the shared computer screen.

There seems to be a clear knowledge gap between the participants, which is evidenced in the pauses in the sequence (lines 35, 40), the different trajectories between SP's declarative turns (lines 34, 39, 'yes it stops this', 'it's forty seconds'), and in those turns of C that indicate his problem (line 41, 'but now it's reset'). However, C continues his own trajectory by meta-commenting on his own mobile screen view and the activity happening there. Furthermore, C once again directs SP (line 37, 'now when you press play again'), and commands SP to continue the testing on the shared screen, indicating that C is still struggling with the issue. SP again complies with C's directive; in these cases, in contrast to previous excerpts, SP's keyboard activity is subordinate to C's directives: SP's

mouse clicks follow accurately C's directive turns (lines 31, 37). This indicates that the shared screen has now evolved into a mutual resource for the participants. Furthermore, SP's careful orientation to C during the activity serves not only to display his serious orientation to C's problem but also his intention to solve the problem, 'teaching' C by demonstrating the functionality of the software on the shared screen. The following pictures (4a and 4b) illustrate the two-step activity, in which SP follows carefully C's directive and modifies the screen accordingly to test the software on the shared screen.
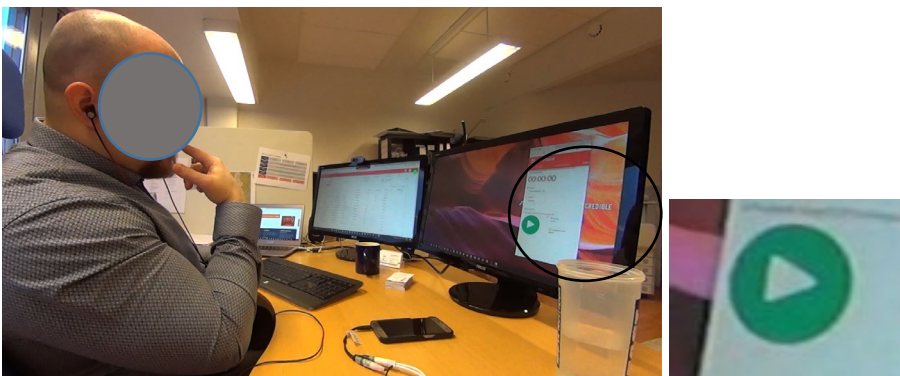

Figure 4a: SP listening to the beginning of C's directive (line 37 'now when you press%'; % marks the moment when the still shot was taken). Note the green "play" button on the screen.
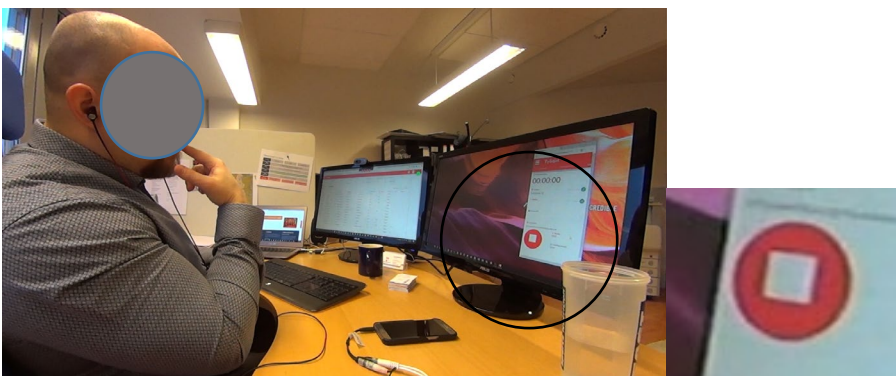

Figure 4b: C has completed his directive (line 37 'play again* or does the watch run%'). SP pressed the "play" button (marked by *), which transformed immediately into a red "stop" button.

After some overlapping talk (l. 42–43), SP finally succeeds in explicating the solution to the problem—the location of the system's timing result (line 44, 'it will appear on the work time row'). C's following turn includes several cues that demonstrate an exaggerated display of understanding (line 46, 'oh yes yes so yes yes yes right okay'). The turn-initial *aa*-particle (Koivisto 2015), together with the repeated confirming particles (Sorjonen 2001) and their remarkable prosody (slightly rising pitch), indicate a clear change in C's understanding. According to Koivisto (2015),

the particle *aa* (roughly 'oh yes') in mundane Finnish conversation is a change-of-state token (Heritage 1984) which in repair sequences conveys either delayed or revised understanding, or 'now-understanding'. In this excerpt, C's exaggerated display of understanding clearly indicates a change from a lack of understanding to 'now-understanding' and thus learning *in situ* how the system actually works (for a CA perspective on learning, see e.g. Melander and Salhström 2009). However, it simultaneously indicates (from C's point of view re-orientation) a rather long-lasting hands-on learning situation concerning a functionality of the system. In this extended sequence, the shared screen served as a mutual resource for the participants in a joint problem-solving activity, prompted by C's contributions reflecting his (lack of) understanding of the service and its functionalities during the online sales interaction.

5   Conclusion

In this article we have shown how a shared computer screen in an online business-to-business sales interaction begins as a salesperson resource for displaying to a customer the basic functionalities of the service. We then demonstrated how the shared screen gradually evolves from a salesperson resource into both a salesperson's and a customer's resource. This change, and the emergence of more substantive (multiword) customer contributions, reflects the customer's growing knowledge and understanding of the service being offered by the salesperson.

Our findings reveal that a technologically-mediated sales demonstration as a specific activity-type (Levinson 1979, 1992) calls for salesperson-initiated and materially afforded prompting actions. In addition, it requires the customer's explicit orientation towards joint activity and later displays of understanding and learning about the solution that is presented. At the beginning of the web conference, the salesperson in our data draws on the shared screen to present a slideshow on the history and key value promises of his company. After this phase, the salesperson initiates a move to the marketed service and begins to demonstrate how it can be used in practice. Our findings suggest that the closer the conversation gets to the customer organization's operative context, the more the customer is able to contribute and to use the shared screen as a vehicle for his/her own interactional purposes. Thus, the shared screen finally functions as a medium for participants' actions to achieve and maintain joint focus of attention, which is evidenced in recurrent deictic expressions and other linguistic means, accompanied by the salesperson's coordinated keyboard activity.

Due to the lack of visual access between the web conference participants with a shared computer screen, the participants must draw on meagre resources to achieve joint attention on the screen, which is a precondition for the customer to understand and learn about the software. Throughout our excerpts, we demonstrated that in a remote interaction the salesperson relies on local ecology of activities (Mondada 2016) and situationally relevant material affordances. The salesperson uses the keyboard activity synchronized with on-going talk to guide the customer's focus on a shared screen (Excerpts 1 and 2) or to follow the customer's screen-related directives (Excerpt 3).

As a response to the marketing literature's call for understanding micro-level interactional mechanisms in sales dialogue (Storbacka et al. 2016), this article has provided microanalytical perspective of a moment-by-moment online sales interaction. We focused on how technological resources are exploited in a remote sales interaction as a medium for joint attention, collaboration, and hence knowledge sharing and negotiation. Our study demonstrated how a customer's emerging contributions mirror his situated understanding and learning. From a theoretical and practical sales point of view, these findings may provide concrete tools to discuss how boundary-spanning work may be actualized in technological sales environments, aiming to manage and stabilize the potential knowledge boundaries between participants. Furthermore, our findings discuss how screen view as a gradually emerging shared resource during sales interactions functions as a ground for participants in the co-creation of value in a complex, technology-mediated sales environment.

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APPENDIX: Transcription Conventions

.	Falling intonation
,	Level or slightly rising intonation
?	Rising intonation
↑	Upward intonation pattern
↓	Downward intonation pattern
:	Sound stretch
re<u>al</u>ly	Stressed syllable
(.)	Pause, less than 0.3 seconds
(0.5)	Length of pause
[ ]	Overlap
((laughs))	Transcriber's descriptions or comments, contextual information
(--)	Indecipherable