Is e-leadership development enlightening?
Handling fragmentation by making leadership algorithmic


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Introduction
The digital transformation is claimed to affect all kinds of organized activity, and leadership development in relation to the digital era has become a priority – what kind of leadership is needed and how is it to be developed? Interestingly, leadership studies have been mostly unconcerned with material artefacts (De Paoli, Ropo, & Sauer, 2014; Ford, Harding, Gilmore, & Richardson, 2017), in particular technology, treating leadership as a social or psychological phenomenon. We address the need for more insight into how digital technologies are included in leadership development by focusing on a specific form of leadership practice related to digital technology: e-leadership (leadership through digital tools). A body of literature explores the challenges due to the technology used and to the physical and cultural distance of those interacting (DasGupta, 2011). Our focus is different. Rather than considering
technology as the tool through which leadership is transmitted and humans the source of leadership, we look at leadership practice as sociomaterial, presenting both a social and a material dimension (Sergi, 2016) We thus explore what happens with leadership practice when it becomes e-leadership practice. More specifically, what impact has leadership development?

To this end we study an e-leadership training program. Thanks to the mix, in the program, of practicing leadership and reflecting on leadership practice, we first explore what “e” in e-leadership does with leadership and then what kind of e-leadership practice the training contributes to shape. Our analysis is informed by an understanding of leadership as practice (Carroll, Levy, & Richmond, 2008; Crevani, Lindgren, & Packendorff, 2010; Raelin, 2016). As we will discuss, the fragmentation that seems to emerge as a problem in e-leadership is addressed by what we interpret as attempts at constructing stable entities connected to each other in predictable ways in leadership development. This leads to shaping leadership practices that we characterize as algorithmic – is leadership development including the use of digital technologies leading to practices that could be relatively easily performed by robots?

**e-leadership**

Leadership in relation to virtual teams has attracted research interest during the past decades: e-leadership, virtual leadership and remote leadership are the labels used (DasGupta, 2011; Kelloway, Barling, Kelley, Comtois, & Gatien, 2003). “Leadership interactions that are characterized by electronically-mediated communication between geographically and physically isolated leaders and followers” (Kelloway et al., 2003, p. 164) is a definition capturing the dispersed and digital nature of remote leadership. Avolio, Sosik, Kahai, and Baker (2013) defined e-leadership as “a social influence process embedded in both proximal and distal contexts mediated by AIT that can produce a change in attitudes, feelings, thinking, behavior, and performance” (p. 107). The difference concerns the irrelevance of the physical distance, and it reveals the development of a more widespread use of virtual teams and collaborations throughout private and public companies. As the implementation of virtual teams penetrates an extended sphere, what was once an issue limited to geographically dispersed teams, is now a matter of concern for a rather extended group of organizations and companies.
Attempts to use the same strategies and techniques that are used in face-to-face leadership is posited as a reason for failure (Berry, 2011) with challenges such as effective communication, creation of trust, and social loafing as frequently highlighted issues (DasGupta, 2011). Such a body of literature is grounded in an entitative understanding of leadership, in which humans are sources of leadership and technology is a means for transferring it (see Avolio et al., 2013). Still limited is research concerned with e-leadership as practice grounded in a processual and relational conception of reality, decentering leadership from individuals to interactions. While such an approach has gained interest in leadership studies, it has been less active in relation to developing an understanding of the phenomenon that includes technology, probably given the strong interest in the “social”. Notable exceptions are for instance De Paoli et al. (2014).

**Understanding e-leadership as a sociomaterial practice**

As technology plays an important role in e-leadership and its development, we want to argue we can increase our understanding of this phenomenon by decentering leadership not only from individuals to interactions, but also to more actors, including technological artefacts. In this paper we therefore build on the growing stream of leadership studies conceptualizing leadership as practice emerging in interactions, and in particular on those studies taking into consideration its material dimension (De Paoli et al., 2014; Ford et al., 2017; Sergi, 2016). Sergi (2016) argues for taking into considerations work-related artefacts, while Ford et al. (2017) explore how the leader emerges as material presence, with the business suit playing an important role. In the context of virtual leadership, De Paoli et al. (2014) show that the sensitivity for relating to coworkers or managers physically increases in the virtual context. Examples are, for instance, how attention to the camera images is high, which means picking up multiple cues based on the physicality of the participants in the virtual meeting room.

To acknowledge the coexistence and intertwining of social and material dimensions we use the term “sociomaterial”, inspired by, among others, Orlikowski and Scott (2008) and Cooren (2018). Our sensitivity is tuned to pay attention to which configurations, out of a world of relations, emerge and with which effects (Barad, 2007). Rather than being preoccupied with how the social and the material in a situation affect each other, we build on the assumption that everything is social and material and try to explore what is separated in practice and which kind of entities are produced. With such a sensibility we address the question of what kind of e-leadership practice is being produced in the training program we observed.
Method

In order to explore how e-leadership practice is being developed we use a qualitative approach inspired by praxiography (Mol, 2002). We explore “a story of practices” (Mol, 2002, p. 31) where focus is on dialogical exchange, reflection and the development of practices (Raelin, 2016). We focus on a particular instance of leadership development, a ‘Remote leadership training’-module for first- and second line managers at a large multinational company. The training is called ‘Remote leadership training’ but, according to the definitions used in this paper, the content is focused on e-leadership, which is the phrase that will be used for the purpose of this text. As the company position themselves as a market world leader at the technological (digital) forefront, they make an interesting case for understanding e-leadership practice. Since we focus on training modules, we can access and understand a practice being developed in co-creation during the training progression. Training consisted, in fact, of both practicing leadership and reflecting on leadership – we did thus observe both the “doing” and the “talk”. Although there is always a difference between how leadership is practiced in mundane situations and in training, what is produced during training is the ideal practice and, as such, interesting to analyze.

16 managers participated in the training hosted by an external consultant and an internal learning and development partner. The training schedule consisted of two face-to-face kick-off days, two face-to-face closing days and three 90 minutes on-line sessions in between, in which e-leadership was practiced. The program spanned over three months during the autumn 2018. The first author was invited to observe and to take notes but was not allowed to record the sessions – very detailed notes (amounting to 45 114 words in total), as well as photos, were taken. The face-to-face days were organized at a conference venue whereas the on-line sessions were organized via Skype with audio and video as mandatory tools.

e-leadership as fragmented

The empirical material shows a number of fragmentations in the discussions shaping the practice as well as in the on-going practice of e-leadership that is taking place during the on-line sessions. The fragmentations are disruptions or decompositions of what is going on, and they appear in the material and social entanglement that constitute the e-leadership practice. In this short paper, two examples of such fragmentations are introduced, namely fragmented body and fragmented interaction. Due to space limitations, the remaining fragmentations such
as fragmented engagement, fragmented space and fragmented sensations will be elaborated on further in the subsequent full paper.

**Fragmented body**

In the material, the fragmentation of the body is a frequent theme. It is expressed either as a total lack of bodily cues or as more subtle differences between face-to-face meetings and virtual meetings.

“[when using the camera] you don’t get eye contact as the camera is not located in the middle of the screen, which is where you actually look during the meeting.”

Participant during day 1

When using the camera, only fragments of the body are visible and, furthermore, the fragments that are visible do not transfer the expected face-to-face synchronized images. In addition, as the image of yourself is present on screen, the own body is equally fragmentized during the experience of an on-line meeting.

The fragmentation of the body is also evident in the expressions of virtual meetings as completely non-physical experiences.

“In real life, I can punch the guy in the face. No, not really, but I could. In the virtual world, I have to think differently.”

Facilitator during day 2

To transfer the physical punch into the sociomaterial virtual meeting is experienced as a challenge and as something that would have to be solved in the absence of bodies. Other examples of the fragmented body include viewing people from the side, and the absence of hands when the camera is focused on the face and the ceiling, which excludes the body language available in face-to-face encounters.

**Fragmented interaction**

During the training sessions, the participating managers frequently talk about the disruptions in meetings and conversations. Examples such as bad connections, muted microphones,
documents that cannot be viewed and people working on other things during meetings are numerous.

“We even accept that when people clearly are not paying attention, they blame being on mute: ‘sorry, can you repeat that, I was on mute’”

Participant during day 1

The fragmentations of interaction are described as leading to impaired quality and inefficiency and are, as such, experienced as an intertwinement of social and material aspects.

Fragmented interaction is further experienced during the on-line sessions.

Two participants are joining the meeting from the same physical room. Audio and video do not work for them as there is audio interference and video only on one computer. 11 participants are waiting and trying to aid in solving the problem. “Yes, she is moving” one participant says. “Not on my screen, here she is only on photo” another participant answers and the meeting is on a standstill until the camera issue for the single participant is solved.

Observation from on-line session 2

The interaction is experienced as fragmented as participants randomly disconnect (or are being disconnected) and re-connect, as several speak simultaneously or someone is on mute despite being prompted to speak, as you see someone talk to their desk neighbor or lights go out in someone’s office.

Furthermore, cultural differences as disruptive are brought up during the training.

[Facilitator] gives his own example of Americans he has worked with using the phrase ‘Jeez’, and that especially the Asians had problems understanding this expressions. “What do they mean?” he says.

Observation from on-line session 1
Cultural differences as the one described, means fragmented interaction in the social and material intertwinement that constitutes the situation.

**e-leadership training as producing entities**

The fragmentations experienced by the participants in the e-leadership training are identified as issues or problems that require solutions. The training sessions and the discussions evolve around possibilities to re-create what we interpret as units in order to handle the fragments and discontinuities. To create what is experienced as complete, controllable units is reasoned to be the manner in which to deal with e-leadership. Due to space limitations, some glimpses of one example of unit creation will be given in this short paper while units such as interlocutors (e.g. complete units that communicate), communication channels (e.g. pre-defined rules for when and how to communicate), language (e.g. agreement on words to be used) and foci (e.g. technology and social separated) will be further discussed in the longer version of the paper.

**Roles**

During the second training session, it is highlighted that what distinguishes ‘the classical’ from ‘the virtual’ is that in the virtual world you have to centralize and formalize more. The facilitator talks about how centralization comes back to hierarchy and how they have to bring hierarchy back.

> “You as leaders have to explain purpose of a task or a decision and get an agreement and then it has to be considered a must-have. That is, a non-negotiable task. You also have to bring bureaucracy back. You gain much from having virtual teams; time, resources, but you also have to pay by bringing in bureaucracy. And people will object.”

Facilitator during day 2

To approach the perceived fragmented team, which is perceived as such due to spatial and temporal dispersion, new structures and roles are suggested as the solution. To build hierarchies and use authority will create a unit where control is maintained and rules are followed. The traditional view of the leader as the one doing leadership and the one to be in charge, is re-created.
Algorithmic leadership: Handling fragmentation by producing rigid configurations

Building on studies foregrounding the materiality of leadership practice (De Paoli et al., 2014; Ford et al., 2017; Sergi, 2016), we show that the absence of physical meeting leads to different kinds of fragmentation that seems to emerge as a problem in the doing of e-leadership (the analysis will be further developed in the full paper, here we have just provided illustrations). For instance, as virtual meetings may make the physicality of the interaction even more important (De Paoli et al., 2014) and certain non humans, as a proper suit, have a central role in materializing leaders (Ford et al., 2017), the fragmentation of bodies becomes an amplified challenge to leadership practice.

The leadership development initiative we studied seems to address such fragmentations by re-constructing stable units in the form of roles, language use, etc. We were struck not only by how the traditional lone leader is thus re-constructed, but also by how such entities are connected in formalized and predictable ways. We observed rather experienced managers concluding that rigid rules on how to make things predictable in a virtual meeting are the essence of developing e-leadership. The question of how to work with relations, how to meet subject to subject, how to let ideas creatively emerge when differences are acknowledged, among others, are not mentioned. Most focus is on how to make meetings work, in the form of abstract exchange of information – this is constructed as leadership. In relation to the call for papers title, the rationality of the Enlightenment dominates. While experimenting with new artifacts and spaces may lead to novel ways of addressing the challenge of leadership (Carroll, 2016), what we observe is the creation of rules that bureaucratize leadership: which information channel should be used for what, formal agendas as completely steering the meeting, the leader as the one who should take control, etc. To us, this is even more than a bureaucratization of leadership. We would define the e-leadership produced as algorithmic.

Although the possibility of having digital coworkers or managers was not part of the training we studied, the practice produced, in its ideal form, constructs entities and formalized connections (as in an algorithm) to such a degree that robots could actually take part in it. Interestingly, developing the use of digital technologies in leadership practices seems to pave the way for digital technologies to, in traditional leadership studies terminology, be not only what usually is considered the “means” of leadership, but also the “sources” or “receiver” of leadership.
Selected references


