

COVER PAGE

Digital Unbounding of the Polling Booth: Ethnography in Small Places

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Abstract:

This article discusses how a small place – the polling booth – can be bounded as an ethnographic site with reference to the political and democratic event that it is supposed to facilitate. Concerns about the socio-material bounding of the booth form the main empirical case – a debate, which recently occurred in Denmark when the government proposed to digitalise voting. Digitalisation here became a controversy because of the potential illicit influences that computer experts argued would enter the polling booth and challenge the secrecy and the privacy of the vote, the transparency of the electoral process, and thus the electoral enactment of democracy itself. In this way the polling booth potentially works as an ethnographic entry point for following shifts in contemporary debates.

Keywords: ethnography, digitalisation, elections, place, event, democracy

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Introduction

In January 2012, 12 Danish municipalities submitted an application to the Ministry for Economic Affairs and the Interior requesting permission to conduct binding experiments with electronic voting technologies (e-voting) during the upcoming municipal election in November 2013. Voters at select polling places would be allowed to use computers instead of pencils and paper to cast their ballots. The government strongly supported the idea and set in motion the preparations of a law proposal to allow for the conduct of the experiments. However, to the surprise of many of the people involved, the law proposal, named L132, was withdrawn in March 2013 after failing to get the necessary support to make it to the second reading in parliament. In the preceding months, L132 had become controversial because the digitalisation of voting was seen by a small but very vocal community of computer experts as turning the polling booth from a place ensuring the isolation of the voters and the privacy of their vote, into a networked space open to undetectable manipulation. Where proponents argued that e-voting would modernise the electoral process by allowing easier casting of ballots and effective tallying of votes, its opponents argued that the potential digital connectedness would jeopardise fundamental democratic principles including not only the secrecy of the vote but also transparency and public control of the electoral process.

This article takes the public controversy over L132 as a cue for a discussion of the parallel bounding of democratic sites and ethnographic field-sites. The concern expressed by computer experts over the bounding of the polling booth reflects our concern as ethnographers about how to study elections and polling places as socio-material and cultural phenomena that cannot easily be bounded in time and space. Anthropology has traditionally focused on what occurred in small places or locations, yet regarded the practices of these places as crystallising or being related to 'large' and general issues of human society and culture (cf. Eriksen 1993). Recent approaches such as multi-sited ethnography

still take the local and locations as a starting point for extending explorations of interconnectedness and complexity (see Marcus 1995; Gupta & Ferguson 1997), which in turn has generated calls for self-imposed limitations to reconsider the bounded field-site as generative of ethnographic meaning and focus (Candea 2007). We take up the thread of addressing democracy as a large issue from the vantage point of the polling booth as a small bounded place. This focus results from an ethnographic interest in our informants' concerns; these informants, public servants, politicians and computer experts, engaged exactly the question of boundedness during the controversy over the digital booth.

Where anthropologists have previously tended to see voting as political ritual, some of the more recent theorisations have been inspired by science and technology studies in focusing on the socially performative quality of the technologies and techniques of voting, and how it extends beyond the confines of Election Day and its polling places (Bertrand, Briquet & Pels 2007; Coles 2007; Kelty 2008; Vadgaard 2016). We align ourselves with this shift in approach in addressing democracy and elections as socio-materially enacted, because the controversy over the digitalisation of the Danish polling booth emerged from its potential social and material connectedness to ambiguous outside influences across time and space, and the vulnerabilities brought about by those connections. The recent fears about the potential compromising of the 2016 American presidential election by Russian hackers fully demonstrates the timeliness of this discussion, even if polling technologies in the USA have long been a controversy (Saltman 2006: 200-211). By asking what kind of place is made or unmade by the digitalisation, we want to reach out from the polling booth to also gain an understanding of the events and processes that produce it, to make our ethnographic bounding come from our informants' (un-)bounding of the site (cf. Candea 2007). As argued by Coles among others (2007: 127), the relevant events cannot be confined to place and the moment of the 'the election ritual' only, but also include contemporary debates and cultural transformations. Our approach thus also expresses a processual understanding of voting (Gad & Dalsgaard 2015, 2017), which takes into account both its practical and socio-material circumstances and its generative potential when it comes to conceptual

and symbolic meanings related to democracy and boundaries. Actions and processes are mediated by the materialities of the voting system at hand, and these materialities are always social as the specific designs embody values by affording or constricting actions, yet without determining them.

The structure of the article is as follows. First we will clarify how the polling booth produces and protects the secret ballot as a central feature of democratic elections. Then we move on to discuss the kinds of actions that characterise the small place in relation to elections as events, and we explore the controversy of bounding the polling booth that emerged during the public debate about e-voting in Denmark, and how this debate was inspired by insights and arguments from computer science. Finally we return to a discussion of what constitutes the polling booth as a small place, and how it is interesting as an ethnographic site.

The polling booth as place

What polling booths across cultures have in common is that they attempt to create a state-controlled and orderly space, which individualises persons as autonomous voters by detaching them from their local and meaningful social relationships and the concomitant social obligations. As an individualising device, the booth constructs the voter as an 'ideal-type' by cutting his or her social relations in a specific place for a brief duration (see Bertrand, Briquet & Pels 2007). The voter performs the cut when entering the booth alone and by closing the curtains (if there are any) to make sure that there are no witnesses to the act of voting. After being separated from other people, the voter may mark his or her choice on a ballot in private. The voter is then subsequently separated from the ballot, when it is dropped into a ballot box. Here it becomes indistinguishable from other ballots apart from the one characteristic, which now counts namely who or what has been voted for. The secret ballot is thus the result of a series of cuts in a process that counteracts unwarranted witnessing but also prevents voters from being able to provide proof of how they voted.

Bertrand, Briquet and Pels refer to the secret ballot ensured by the polling booth as one of the most treasured and possibly most fetishised technologies of

western liberal democracy (ibid.). If electoral officials do not ensure the privacy of the voter (i.e. the separation of the voters from witnesses and from their ballots), the international community and electoral observers will quickly regard the election in question as compromised. This was not always so. The secret ballot has a particular historical origin, and many critics were opposed to it during the process of its introduction in the 19th century and onwards.¹ Prior to this, 'open polling configured elections as a special type of ritual [...] polling was, literally, a public action.' (Orr 2015: 95). In the UK, for example, elections held before the introduction of the secret ballot have been described as 'spectacles' (O'Gorman 2007). It was noted in poll books how voters disposed of their vote, and they would be scrutinised publicly, when making their choice, which was often expected to follow their employers' or landlords' suggestions. In return, voters could be rewarded with food, lodging or a small sum of money (O'Gorman 2007). This process of voting appears to have embodied paternalist obligations, where votes were gifts or services in on-going exchange relationships between voters and candidates.

In Denmark, the introduction of the secret ballot in 1901 coincided with growing public support for the social democrats (the Danish equivalent of the labour party) and other working class parties (Elklit 1988). The Danish political scientist Jørgen Elklit's work suggests that this concurrence demonstrates how the secret ballot in Denmark made it possible for voters to cast their ballot as free individuals according to class interest. The secret ballot, it seems, liberated voters from the pressure to reciprocate the favours offered by a 'patron'. A concomitant result of the secret ballot – at least in the UK – was that electoral patrons' influence over voters instead of being based in personal exchange became institutionalised in the bureaucratic structures of the large political parties (O'Gorman 2007: 33). The replacement of one type of institutional power for another meant that the polling booth was not only liberating, nor would it always fit into a neat narrative of progress (Coles 2007: 7).

Today, the secret ballot is regarded as an unquestionable universal right in many countries. Yet, following the work of Strathern among others (1988), at least one

of the particularities of the ballot can hardly be said to be universal – namely its reliance on the idea that individuals are the basic components of society. Indeed, the performance of the voting booth in singling out the voter as an individual is not a given. In Papua New Guinea (PNG) for example, it has been noted that during voting in the highlands provinces political supporters of candidates or the heads of kin-groups would sometimes fill out all the ballot forms belonging to members of their group. The members were either intimidated to hand over their ballots (if they ever laid hands on them), or they did so due to social obligations (Gibbs 2007: 266-267). Like the British elections of the 19th century, a vote in PNG can also be a gift given to one's candidate, for which something is expected in return. While the individual casting of ballots is enacted and respected in many other parts of PNG such as in Manus Province, some voters from this area have also expressed disappointment with the secret ballot, because it leads to the breakdown of transparency and thus reciprocity in exchange relations (Dalsgaard 2010).

The polling booth as a state-created place is finally constituted by the practice that voters must leave any visible indications of political allegiances (especially support for a specific party) outside the polling place. The booth itself is likewise stripped of all materials apart from that directly relevant to the marking of the ballot, and it is illegal in most democracies to agitate politically next to polling stations (see Orr 2015: 118-119). Individuals, while ideally capable of making free and independent choices, are still considered easily seducible, though, which is why the cutting of relations extends to these demands. The moment of marking the state-endorsed ballot performs the ideal that no allegiances and obligations to competing social groups and authorities shall influence the voter.

It is, of course, to some extent a fiction that voter's can leave relationships and obligations outside the booth while casting a ballot, and despite the clear performative qualities of the idea (see Bertrand, Briquet & Pels 2007), both meaning and 'the social' do enter the booth through other means. Voting is an affective social act, which may be invested with personal feelings of agency (see Banerjee 2011: 93; Orr 2015: 124), and what is on the ballots certainly has

meaningful effects for candidates in the election and subsequently for citizens subjected to those elected. The location of the booth itself also matters and may generate various sentiments (see Orr 2015). For example, in rural areas of PNG voters may be deterred if polling is set up on the land of rival groups, whose ancestral spirits could then be present. In Denmark, we discovered during our fieldwork that the big crowds present at polling stations turn them into a frightening encounter for people suffering from various anxieties or phobias. In that respect, polling places can appear haunted in several ways.

The polling booth thus gains meaning and relevance in relation to the particular place and electoral event of which it is part, and different polling booths even contain their own forms and characteristics dependent upon particular electoral traditions. The socio-material design of the polling booth and the other technologies of the electoral process are thus highly localised (see Orr 2015: 109), and they are assumed to address the relationship between an electoral system and the democratic norms of a 'culture' or a 'society', which this system is supposed to reflect or manage (e.g. Norris 2004). In this sense the booth is place-like in accordance with the Oxford English Dictionary's definition of a place as a location or an area devoted to a specific (political and social) purpose – even if that purpose is temporary and in theory does not depend on any exact geographical spot.

The polling booth is not simply a place in the traditional anthropological sense, where places are what they are due to the specific meanings ascribed to them by social groups and individuals, or due to the relationships they engender. We argue that the polling booth must also be seen as a *generic* place, concept or artefact (see Strathern 2014). Like global phenomena, the generic refers to that which relies on no locality or singular place for its existence, even if it is always situated. As a generic place in democracies, the polling booth displays some of the qualities of what Marc Augé (1995) has called a 'non-place' – a non-relational space, not concerned with identity except as categories or types (customers, passengers, citizens, voters etc.). It is a transit place, which connects and reconnects to other sites, and it is only concerned with people's identities as they

enter (or leave). Inside they are anonymous. The polling booth is a space, where the voter's anonymised ballot is connected to the tallying bureaucracy, which produces an electoral result, but as a non-place and as a generic, the booth has in common with other generic terms a certain capacity *as generic* in the ability to connect with other places and concepts covered by this term (see Strathern 2014); a capacity partly achieved through the socio-material stripping and cutting of localised meaning and relationships.

The polling booth as connected to an event

As a result of being a temporary and localised technology, the polling booth cannot be separated from the event it co-produces – the election. We connect place and event in our analytical frame in order to make explicit how the polling booth is already connected to issues that extend and endure beyond its spatial and temporal boundaries, and the challenge is to perform the cut that isolates the casting of ballots and the election itself from outside influences (cf. Coles 2007).

To reach an understanding of how event and place are mutually constituted and to what effect, we further emphasise the relation between human action, materiality and technology by drawing general inspiration from Marilyn Strathern's argument that under certain circumstances one can regard artefacts as the enactment of events (1990: 40). This perspective helps us pay attention to how social practices involve technologies and material conditions in the enactment of elections as democratic. How various forms of agency make (or cut) relations in turn helps us understand the making of the polling booth as a place. Historically it has been evident how the technological and material making of the polling booth may evoke debate and potentially destabilise taken-for-granted aspects of democracy. This was the case in Florida after the US presidential election in 2000 (see Miller 2004), and the resistance to e-voting in Denmark was voiced in a similar register of destabilisation.

In the introduction to a special issue of the journal *Social Analysis*, Bruce Kapferer outlines how 'the event' has been conceptualised in anthropology and

in particular by the Manchester School (2010). According to Kapferer, the Mancunians, following Max Gluckman in his criticism of functionalism, began to focus on the importance of the atypical (if not the exceptional) such as incidents, which denoted crisis or conflict. Whereas functionalism had stressed events as representations of a social whole (structure) and hence focused on the typical which illustrated the structure (see also Strathern 1990: 38), Gluckman and the Mancunians rather wanted to appreciate challenges to taken-for-granted and routine social practices. This focus, they argued, would illuminate processes that produced equilibrium and stabilised a given state-of-affairs. They saw the social as characterised by change rather than by stability and structured order.²

Following the Manchester School on how to understand the relation between stability and crisis, one could argue that elections are spaces of contestation as much as they are moments of national unity. Elections are – ideally – the destabilising moments in an otherwise fairly stable democratic structure – moments where everyone agrees to disagree about content (the distribution of parliamentary seats) but not about structure (representative democracy). This description seems to fit Denmark particularly well. In Denmark it is extremely rare that an election result is contested. Other countries, though, frequently see contestation of the result and even the methods of calculating it. The outcome in Florida is a case in point, but also the turmoil after the victory of Donald Trump in 2016 demonstrates how elections as events may even engender potential threats to the constitution of democracy and social order itself.

Elections are not everyday occurrences. In Denmark they occur every other year on average.³ As events they tend to entail extraordinary tasks and rhythms of work to the people involved. It was clear from our interviews and participant observation in the administration of polling places on Election Day that the municipal officials, who are responsible for the proper conduct and organisation of elections, perceive them as stressful periods requiring their full attention (see Vadgaard 2016). Yet the practices that one can witness are in themselves often quite mundane, ordinary and appear to be instances of bureaucratic routine such as categorising, ordering, noting things down, keeping accounts, tallying and so

on. Elections are thus in one way 'atypical' events, but they do involve 'typical' actions. According to several municipal workers we talked to, the typical bureaucratic actions can, nonetheless, be infused with a different sense of both seriousness and festivity, when they are related to the election. We were, for example, told how approving a postal vote in this way feels different from approving a passport or a driver's licence in everyday bureaucratic work.

In some important ways elections compare to how some of the early Mancunians' characterise the event and the relation between structure and anti-structure – for instance Turner's focus on the drama and ritual with its liminal periods or places (Turner 1967, see also Kapferer 2010: 10) – or Handelman's classification of different types of events based on institutionalisation and routinisation (Handelman 1998, see Kapferer 2010: 11). As mentioned in our introduction, 'a classic anthropological move would be to treat elections and specifically Election Day as a ritual.' (Coles 2007: 123); as state celebrations of democracy that invoke the inclusion of voters as full citizens, by which they confirm the relationship between state and society (see also Orr 2015). Yet, whatever kinds of actions make up elections and whatever they signify, elections cannot be regarded as simply illustrations of structure, nor as exceptions and challenges to structure even if the way in which elections are constituted, confined and conducted addresses and produces imaginaries of the 'larger issue' of democracy. According to Kapferer, events have been used in anthropology either as illustrations of descriptive or theoretical claims, or as happenings presenting slices of life or problems to be explained via ethnography. This would be one way to approach the generic election as event. However, we are also dealing with a more particular event in the particular context of our study – namely the aforementioned debate about digitalisation. In the discussions of e-voting, contrasting imaginaries of democracy were emerging from the potential digitalisation as 'a creative moment giving rise to new social and political potentials' (Kapferer 2010: 19).

Hence in order to understand the importance of the different events and the importance of the polling booth as a place, we follow Kapferer in his Deleuzian-

inspired aim 'toward the exploration of the event as singularity in which critical dimensions can be conceived as opening to new potentialities in the formation of social realities' (2010: 1). With this statement Kapferer argues, in a move to take ambiguity and contradictions seriously while not assuming society to be a coherent totalised order (2010: 15), that anthropology could take 'the event as central to anthropological analysis rather than the concept of society' (2010: 1). This way of thinking about events as generative moments allows Kapferer (and us) to bypass the dichotomies of typical/atypical and part/whole in relation to 'a culture' or 'a society'. The two events we discuss here – the election as a generic type of event and the debate about e-voting as a particular one – both espouse generative potentialities and uncertainties, which should be further evident as we now return to the debate about a potential future digital polling booth.

Preparing for the digital polling booth

In the debate about e-voting in Denmark it was the bounding of the polling booth, and thus the ideal of temporarily cutting social relationships to produce the secret ballot as discussed above, which was at stake. All the actors involved agreed that the isolation of the voter from external influence is a crucial aspect of democratic elections, but whereas proponents of e-voting believed that the cutting of relationships would be retained using new digital technologies, opponents argued that it would not. The boundary-making potential of the polling booth itself became a site of struggle in the face of digitalisation.

We gained access to the empirical details of this debate as members of the research project XXXX, where we collaborated with computer scientists in studying how digitalisation challenges or outright transforms democracy in Denmark. Originally the overall aim of the project was to investigate and participate in the introduction of e-voting technologies to Danish elections by designing and conducting experiments with such technologies, exactly as L132 would have allowed for. Ethnographic studies of the organisation and practical conduct of elections was supposed to inform the software design and testing of the technologies by our computer science collaborators. The research was then ultimately meant to provide decision-makers with insights of whether it was

possible to 'modernise' the electoral process without jeopardizing fundamental democratic principles. However, before having achieved any substantial research results, the project team was called upon by the Ministry to give consultation on the process of writing L132 and to comment on suggestions for technological solutions. Our discussion thus builds on the insights we have gained from being entangled in the process itself, which has included numerous formal and informal interviews as well as participant observation in elections, in meetings with stakeholders and in joint public communication of the state-of-the-art within the different research fields encompassed by the project.

The law proposal drafted by the Ministry of Economic Affairs and the Interior did not *intend* to do away with the boundaries of the polling booth or with those of the election as event. Voters would still be required to arrive in a polling place and enter a secluded area, where they would cast their vote as individualised voters as usual. Instead of marking a paper ballot directly, they would now be using a digital device (Folketinget 2012-13). Many details of how the voting could or should be done digitally was, however, left unspecified in L132 in order to allow private vendors flexibility during a public procurement process. During the process of public hearings, arguments defending L132 nonetheless frequently ended up explaining how the technology could be specified. For example, most commentators assumed that the voter would choose a candidate or a party on a computer screen and print a ballot as a receipt, which should then be dropped into a ballot box as before (e.g. Kildebogaard 2013a; Vestager 2013).

In presenting and defending L132 in Parliament, the Minister for Economic Affairs and the Interior argued that e-voting provided multiple advantages (Folketinget 2012-13; Folketinget 2013). These included quick and accurate tallying of votes, alleged costs-savings as well as increased accessibility for disadvantaged voters. The vision shared by the government, the municipalities and other proponents (most discernibly the Danish Association of the Physical Disabled), was that digitalisation would simply be a motor for optimising the existing process to make it cheaper, faster, more accurate and more inclusive (Gad & Dalsgaard 2015). The minister, Margrethe Vestager, especially stressed

the importance of the democratic principle of access and inclusion. E-voting would give 'people with different disabilities [...] a completely different access to voting just like us, who do not have a handicap' (Folketinget 2013, 11:29).⁴ The other aspects were to the minister 'practical issues' (ibid.), while the challenge of the bounding of the booth was 'technical', a view also characterising the statements made by other government spokespersons in the debate.

Computer experts opposed to L132 contested the claims to the efficiency of e-voting as either naïve, ideological, practically unfeasible or as creating too many uncertainties and risks. E-voting was to them a solution without a problem. The potential security risks as well as the uncertain costs were repeated by Michael Aastrup – spokesperson for the large right-wing liberal party Venstre – as a reason for the withdrawal of his party's support for L132 (Kildebogaard 2013b). Other concerned members of the public or of Parliament argued that control of the elections would be delegated to an IT-savvy elite at the cost of public transparency and scrutiny of the electoral process as a democratic principle. Stine Brix, a member of the left-wing party Enhedslisten stated that it was crucial that 'you as a citizen can ascertain what happens to your vote' and she praised the current system, where the election 'takes place because of ordinary citizens, who act as electoral observers.' (Meister 2013).

When the advantage of e-voting to people with impaired vision or other disabilities were mentioned (the only reason for e-voting that no one could really oppose), the response was that e-voting would not so much enable the disadvantaged voters, as it would disable ordinary voters by alienating them from understanding the process (Gad & Dalsgaard 2015). A frequently heard line of commenting was that 'one thing is whether IT-security people can recognise whether the e-voting solution is secure enough. Something else is whether the ordinary Dane can feel certain that the system does, what it is supposed to' (Meister 2013). Such lack of transparency could – it was argued – mean that 'the voters lose trust in the election, and abstain from voting' as one reader of *Version2* wrote in a comment directly addressing the representatives of the Danish handicap organisations (see Meister 2013).

The discursive construction of the imaginary of a digital booth was thus a challenge to the above-mentioned binary of generic and particular. The digital booth never came into actual existence but it was nonetheless a generative moment (Kapferer 2010) in the democratic debate about digitalisation and voting. The controversy pointed towards a shared concern for democratic principles, which everyone involved seemed to subscribe to, but also towards disagreements about which norms were the most important (security, transparency and trust versus inclusion), and whether they could be equally guaranteed with a digital polling booth. This was also a disagreement over what new democratic institutions Denmark would need, if the continued trustworthiness of the process were to become more reliant on computer science expertise. According to opponents, digitalisation would seriously transform the voting process and the democratic principles guaranteed by the current socio-material design of the polling booth. The principles and the practical issues could not be as easily separated – at least not through digitalisation alone.

The risks of e-voting

The computer experts opposing L132 primarily came from a particular community debating through *Version2*, an online IT-professional news-site maintained by the engineering journal *Ingeniøren* ('The Engineer'). *Version2* arranged public meetings, discussed passionately with politicians and others online on the *Version2* blogs (see Sandal 2015), and voiced their concerns at an expert workshop about the suggested system and at a hearing about L132 in parliament. The opposition to L132 drew upon discussions of past international experiments with e-voting as well as discussions in computer science circles about e-voting technologies.⁵ Proponents such as the political spokesperson for the Social Democrats, the largest party in the government coalition behind L132, would claim that 'There are already well-developed and tested systems on the market, which we could make use of in Denmark. It makes the same high demands to security and anonymity as we know today, but at the same time they are much more effective.' (Folketinget 2013, 10:28). Opponents would counter

this by referring to numerous technical reports and investigations arguing on the contrary that the digital voting technologies developed by private vendors were easy to jeopardise (see Saltman 2006; Jones & Simons 2012). We will review the key aspects of these discussions, since they clarify the different problems with an unbounded polling booth.

Many computer scientists have for years been vehemently critical of e-voting (e.g. Simons & Jones 2012). The criticism is frequently focused on the magnitude of 'risk' and 'security issues'. Digitalisation would mean for instance that hackers, if they gain access to the vulnerable nodes in the network, would be able to manipulate not just one ballot but multiple or even *all* ballots. The fear that Russian hackers should have managed to compromise digital ballots in key states during the 2016 US presidential election is a pertinent example. Shortly after the election, Alex Halderman, a prominent computer scientist with expertise in security and privacy issues of e-voting, signed an affidavit in support of scrutinising the ballot-casting machinery in the state of Wisconsin (Wisconsin Elections Commission 2016). Even if no digital tampering took place, the possibility that it could happen threw the integrity of the election into question and demonstrated the vulnerability of both the voting technologies and US electoral system itself (e.g. The Associated Press 2016).

Experts in cryptography and computer security often frame the challenge in terms of fighting 'adversaries', and they speculate about how security can be compromised by hacking as well as insider attacks, but also due to simple bugs in the code or the protocol or mistakes by users (see Springall et al. 2014; Stenerud & Bull 2012). Some have called for alternative strategies and design schemes to eliminate the risks of hacking. Examples include open source software which makes it possible for independent actors to verify systems, and decentralised protocols so that the electoral system as a whole cannot be hijacked (e.g. Frénot, Grumbach & Reimert 2014),⁶ but the preferred solution is to retain paper ballots that allow for a manual recount (Halderman 2016).

The general concern among the computer scientists working with voting technologies is that the integrity of elections depends on a balance between transparency and privacy (see Springall et al. 2014). In this context, transparency refers to how everyone in principle should be able to check that their own ballot is accepted as a formal vote, that all ballots are counted properly, and that the election result can be verified. Privacy on the other hand refers to the secrecy of the ballot and how the individual voter's choice is respected. This is important not the least when voters have to trust others – a third party or a technology – to guarantee that the result reflects the ballots cast. As a compromise between transparency and privacy, which eliminates the need to trust other human actors directly, computer scientists have attempted to construct systems, where individual voters can verify how they voted and that their own vote is counted towards the result, but without being able to interfere with or check what others have voted. This is frequently referred to as 'end-to-end verifiability' or 'E2E' (see for example www.pretavoter.com).

This concern about getting the balance between privacy and transparency right is related to a common argument against Internet elections in particular, namely that voting via the Internet demolishes the secret ballot as the fundamental premise of democratic elections. This central premise – for the voter to choose independently and free from intimidation or obligations – is reconfigured, when ballots are not cast in the state-controlled space of the polling booth, which ensures the cutting of relationships. Votes can be taken, given, bought, sold or exchanged as soon the filling out of the ballot is subject to witnessing. For the Norwegian experiments with Internet elections in 2011 and 2013, the government tried to remedy the risk of intimidation and vote-selling by permitting voters to cast as many digital ballots as they liked, and even to turn up on Election Day and cast a ballot manually. The latest cast ballot would override the others. In this way a ballot cast under pressure could (ideally) be changed without the intimidating or bribing agent knowing it.⁷

But why were both digital tampering and the potential demolition of the secret ballot a controversy in Denmark, when the law proposal suggested maintaining

the polling booth and the traditional physical separation of the individual voter during the process of casting the ballot? As mentioned, the law proposal did not permit Internet elections; it merely permitted the use of voting terminals or computers in the polling places, and it suggested that the use of e-voting was merely experimentation. Polling officials would still be around to observe the process and to ensure that everything worked and everyone followed the procedures.

Firstly, some computer experts argued that even if the machines were not online, the separation of voter and vote could not be guaranteed if a digital system mediated the process, nor could it be guaranteed that the separation would be irreversible. The software on machines needs frequent updates where the computer is either connected to a network or receives transfers via USB or memory cards that can potentially be infected with malware (see Halderman 2016).

Secondly, to counter digital tampering the system would as a minimum need an independent and preferably non-digital set of checks and balances. However, this would open up for disputes concerning which version of the vote would be the legitimate one. In case the digital and the printed versions differed (or if two different digital versions differed), it would be necessary to have determined beforehand which manifestation of the ballot cast should be deemed the valid one. In paper-based electoral processes, the paper ballots are destroyed after the election in order to put an end to the event and to prevent future disputes that would threaten social order. With e-voting no one could guarantee that the voters' choices would not be manipulated or retrievable from either software or hardware after the election despite state-of-the-art digital cryptography depending on how it is stored or discarded. The technology would potentially contain traces of voters' identities and how they had voted. Even if the identity of the voters and information about their votes could be appropriately protected in the present, could such protection also be guaranteed for eternity?⁸

Thirdly, sorting out private versus public ownership of the technology as part of the general electoral infrastructure, and who would hold responsibility for implementing and running it, could also be problematic. Even if purchased by the state, control of the technology could in theory still lie with the company, which originally constructed it, rather than with polling officials and voters. Several companies constructing e-voting systems have refused to disclose their source codes due to commercial interests. This may facilitate 'security by obscurity' but it also leaves both the public and the polling administrators in the dark about how the various digitalised processes work (see Lessig 2006: 141-43; Kelty 2009: 201; Oostveen 2010).

Finally, L132 did not suggest when experiments would end and based on what criteria they would be judged. The ministry would have full discretionary power to continually approve or disapprove of changes to the digital system, which would give the ministry full control of the electoral process for an indeterminate period. Experiments could in principle continue forever.

These concerns show how the physical polling booth's capacity for temporarily cutting relationships could be dissolved in many ways. As it was conceived, the digital polling technology would potentially carry unwanted and invisible present and future relationships manipulating both individual votes and the election at large.

All in all, the prospect of a digital polling booth had been like opening a can of worms. Possibly the most general issue was the transparency of the system and the shift to reliance on expert control at the cost of the participation of voters in democracy – not only as voters casting a ballot but also as overseers of the electoral process in general, since polling officials in Denmark traditionally have been grassroots party members and thus 'ordinary citizens'. The error-prone humans, who were to be replaced by the accurate technology (e.g. for tallying), were exactly seen as democratically guaranteeing the integrity of the manual process through their localised participation, as stated by Stine Brix above. While many politicians and computer scientists (even opponents of L132) were able to

imagine a range of technological solutions for specific parts of the electoral process, it was much harder to envision what new institutions and demonstrations of transparency would have to be established as a result of digitalisation, or what would emerge as unintended results. Hence the fears that 'trust' in the electoral process would dissipate.

Concluding comments: What kind of ethnographic site is the polling booth?

Focusing on the controversy of the digital bounding of the polling booth offers an ethnographic access point for understanding how different meanings of what is considered 'democratic' are generated through the destabilisation of an otherwise stable generic place (the polling booth). Our ethnographic study thus elicits multiple spatial as well as temporal scales in the making of the field, from the recurrence of elections as moments and events to the generic character of the polling booth as a (non-)place (cf. Dalsgaard & Nielsen 2013). However, the uncertain boundaries which matter to some of our informants, indicates to us where scale and connection is under negotiation; following the concerns of informants about the digital unbounding brings its own bounding of our field-site.

Consequently, the controversy invites us on the one hand to consider how the polling booth acts as a socially and materially bounded place both empirically and analytically. The apparent small size of the place and the brevity of the period in question do not really aid the ethnographic task of figuring this out. The isolating capacity of the analogue polling booth poses a particular problem in that it does not lend itself easily to inside participant observation (apart from allowing the ethnographer to do what all voters are supposed to do – to cast a ballot in private), and since the duration of the event (the election) is rather brief, one has to rely on its periodic and recurring nature to make further observations and ask further questions. The advantage is that the secret ballot has been a stable generic entity in Denmark for more than a 100 years, and the small changes that have occurred are documented in public archives. Participant observation related to the polling booth can thus occur 'displaced' in time and space at any election, and we can follow discourses over time and from site to

site as the field comes into being as a recurring event (cf. Coleman 2010). In other words, one does not have to be inside or even to visit any polling booth in particular to understand what is taking place, and how the cutting of relationships works.

Conversely, our small place is thus on the other hand only a small part of what is really 'the field' here (see Mitchell 2010). Studying elections and electoral practices is about much more than what happens in the brief time it takes someone to cast a ballot. This action connects to many other places and actions beyond the polling booth (see Coles 2007; Banerjee 2011), and digitalisation makes it clear that what takes place within the booth cannot be understood in spatial or temporal isolation, but must involve attention to democratic and technological debates as they unfold (in parliament, in expert colloquia, in the media, and in the organisations that manage elections) as much as to their socio-material character. As a form of event, elections express and constitute political stakes in a society, and they are related to culturally specific ideals about what is considered democratic in terms of inclusion, transparency etc., which the Danish e-voting debate demonstrated. Design or engineering of electoral systems (e.g. proportional systems versus first-past-the-post) are frequently meant to mirror political fractions and traditions as much as what the populace generally considers to be a fair representation of these, but designs or rules are often introduced or revised in the hope that they will affect or even 'improve' voting behavior – whatever that might mean (see Norris 2004). In doing so an electoral system is nonetheless expected to live up to certain – universal – principles and definitions of what constitutes the people. While trying to match demographic ideals of a population or a society, the designs of electoral systems are still hardly typifying of or reducible to any particular social structure, nor to any (larger) area, region, country or culture. The place (the polling booth) in our case thus does not add up to or represent a 'culture' (Coleman 2010: 172). Rather the polling booth works as a social device that can connect or cut relationships in a manner that both constitutes and fits the agreed-upon democratic principles and values of a given society or community, and as a generic it allows such societies or communities to recognise and relate to each other as democratic. The polling

booth is much smaller than the kind of place usually thought of as a field, but as should be obvious by now, our point is not that the polling place is the physical location, where the ethnographer should be located (cf. Gupta and Ferguson 1997). The point is rather to understand how even a place as small as the polling booth consists of heterogeneous processes, discourses and relationships – including how the ethnographer takes part in this making by following the way various actors struggle with how and where its boundaries are created. The place itself may be filled with meanings referring to other – often less visible – actors. This was especially the case with the digital polling booth. The analogue polling booth performs isolation but generic relations, whereas the digital booth threatens to reconnect not to local place but to an unknown number of hidden locations and influences. Digitalisation dissolves the generic and non-place character of the booth, and turns it into a place, which is political and social.

To summarise, the polling booth exemplifies well how anthropology can study sites that are both global and local, both generic and particular. As a generic concept or artefact the booth connects different electoral events around the globe. As ethnographers we have been present in polling booths multiple times at elections. We have not been present in all polling booths of course, and we are ordinarily not allowed to follow other voters into the booth. Yet the generic and global existence of this small place makes it accessible even if ballots for example are designed and marked in an immense variety of ways (e.g. Saltman 2006; Jones & Simons 2012). Differences in electoral designs of polling booths and balloting are important in so far as they enable ethnographic comparison between events that all address the ‘large issue’ of democracy. This is why we have argued that electoral events and polling booths are precisely not *illustrations* of social structure, and neither are they easily categorised as typical or atypical. In our case, we can productively view elections following Kapferer (2010) as ‘plateaus of intensity’, where tensions boil to the surface. In our specific case the debate about e-voting was one such plateau itself, as it generated democratic engagement and discussion of a virtual event (e-voting) imagined to take place in the future. E-voting was risky and provided a ‘generative moment’ for reflecting on the digital bounding of the polling booth.

Digitalisation appears in this respect to be *the* quasi-grand narrative of the contemporary. Teleologically enmeshed in utopian as well as dystopian visions, it is exemplified by politically driven processes of digitalisation (see Dunleavy et al. 2005) but also by for instance ubiquitous computing (see Greenfield 2006). Ubiquitous computing promises to connect human beings constantly, but what would that mean for secret balloting? We do not have an answer, but such questions are part of the problematisations of democracy that computer scientists have begun to raise, and which social scientists ought to pay more attention to.

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Endnotes

1. E.g. John Stuart Mill. The introduction of the secret ballot in the UK was part of a set of democratic reforms conferring the right to vote to new groups (O’Gorman 2007). Alexis de Tocqueville (2000) also had interesting views regarding the secret ballot – for instance that it was needed in the stratified societies of the old world, but not in the egalitarian USA.
2. One could argue that it is difficult to know what is typical or atypical – it has to be demonstrated in relation to other connected events or situations. While certainly breaking the ground for later theoretical developments, many of the Mancunians, by being too caught up in relating their ethnographic findings to some notion of ‘social structure’, still had difficulties breaking away from structural functionalism (cf. Kapferer 2010).

3. In Denmark, the parliamentary elections are held at a minimum every four years, but there are also municipal elections every four years and elections for the European Parliament every five years.
4. This and other quotes from the debate are translated from Danish by the authors.
5. Somewhat surprising to us, e-voting has not been problematised in mainstream electoral studies (see for instance journals like *Electoral Studies* or *Journal of Democracy*), but in the field of computer science there are conferences and journals devoted solely to this topic (e.g. EVOTE, VoteID and *The USENIX Journal of Election Technology and Systems*). We have only found one scholar touching upon this in anthropology (Kelty 2008, 2009).
6. The research group in question aim at using 'BitBallot' – a system built on the same principles as BitTorrent or Bitcoin, where the system and thus also the security is distributed among participants via the blockchain encryption protocol and not reliant upon a third (neutral and honest) party for guarantee. Trust is thus reliant on continuous expanding computation (with systematic randomness) rather than human actors.
7. See www.regjeringen.no/en/dep/kmd/prosjekter/e-vote-trial/about-the-e-vote-project.html?id=597724. The unofficial argument made by the public servant responsible for the security of the Internet election, however, was that e-voting should not stand alone but only work as a supplement to the analogue casting of ballots (Christian Bull, Kommunal- og Regionaldepartementet, Norway, personal communication).
8. Upon the conclusion of the second Norwegian election that allowed Internet balloting (September 2013), the organiser Christian Bull publicly destroyed the memory sticks with the encrypted keys in a blender to make sure that nothing could be retrieved (see the online video: www.regjeringen.no/nb/dep/kmd/lyd_bilde/nett-tv/decryption-and-counting-ceremony-of-the-.html?id=735138).

References

Associated Press, The. 2016. US Elections Still Vulnerable to Rigging, Disruption. *The New York Times* Dec 26, 2016.

<http://www.nytimes.com/aponline/2016/12/26/us/ap-us-election-2016-hacking-the-vote-abridged.html>. Accessed 10.1.2017.

Augé, Marc. 1995. *Non-Places*. New York: Verso.

Banerjee, Mukulika. 2011. Elections as Communitas. *Social Research* 78(1):75-98.

Bertrand, Romain, Jean-Louis Briquet & Peter Pels. 2007. Introduction: Towards a Historical Ethnography of Voting. In *Cultures of Voting: The Hidden History of the Secret Ballot*, edited by R. Bertrand, J.-L. Briquet & P. Pels, pp. 1-15. London: Hurst.

Coleman, Simon. 2010. Re-presenting Anthropology. In *Ethnographic Practice in the Present*, edited by M. Melhuus, J. Mitchell & H. Wulff, pp. 169-175. New York: Berghahn.

Coles, Kimberley. 2007. *Democratic Designs*. Ann Arbor: The University of Michigan Press.

Dalsgaard, Steffen. 2010. All the Government's Men: State and Leadership in Manus Province, Papua New Guinea. PhD thesis, Aarhus University.

Dalsgaard, Steffen & Morten Nielsen. 2013. Introduction: Time and the Field. *Social Analysis* 57(1):1-19.

Dunleavy, Patrick, Helen Margots, Simon Bastow & Jane Tinkler. 2005. New Public Management is Dead. Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory* 16:467-494.

Elklit, Jørgen. 1988. *Fra Åben til Hemmelig Afstemning*. Aarhus: Politica.

- Eriksen, Thomas Hylland. 1993. *Små Steder, Store Spørsmål*. Oslo: Universitetsforlaget.
- Folketinget. 2012-13. Forslag til Lov om ændring af lov om valg til Folketinget, lov om valg af danske medlemmer til Europa-Parlamentet og lov om regionale og kommunale valg. Lovforslag nr. L 132. *Folketingstidende A*. Christiansborg.
(<http://www.ft.dk/samling/20121/lovforslag/L132/index.htm>).
Accessed 10.1.2017.
- Folketinget. 2013. 57. møde. Christiansborg
(http://www.ft.dk/forhandlinger/20121/20121M057_2013-02-07_1000.htm). Accessed 7.1.2017.
- Frénot, Stephane, Stephane Grumbach & Damien Reimert. 2014. E-Voting, the Case for Decentralised Systems. Paper presented at “Workshop on Cooperative Technologies in Democratic Processes – Beyond E-voting”, COOP, Nice, France, 27 May 2014.
- Gad, Christopher & Steffen Dalsgaard. 2015. Digital Optimering: Refleksioner over E-valgsdebatten i Danmark. *Tidsskriftet Antropologi* 70:153-169.
- . 2017. Disability as Infra-Critique: A Compositionist Approach to the Election Process in Denmark. *Journal of Cultural Economy* 10(3):237-250.
- Gibbs, Philip. 2004. LPV in Enga: The Wabaq Open Electorate. *Election 2007: The Shift to Limited Preferential Voting in Papua New Guinea*, edited by RJ May, R. Anere, N. Haley & K. Wheen. pp. 261-283. Waigani: The National Research Institute.
- Greenfield, Adam. 2006. *Everyware: The Dawning Age of Ubiquitous Computing*. Berkeley, CA: New Riders.

Gupta, Akhil & James Ferguson. (eds.) 1997. *Anthropological Locations*. Berkeley: University of California Press.

Halderman, Alex. 2016. Want to Know if the Election was Hacked? Look at the Ballots. *Medium*, Nov 23, 2016. <https://medium.com/@jhalderm/want-to-know-if-the-election-was-hacked-look-at-the-ballots-c61a6113b0ba#.itps05edi>. Accessed 7.1.2017

Handelman, Don. 1998. *Models and Mirrors*. New York: Berghahn Books.

Jones, Douglas & Barbara Simons. 2012. *Broken Ballots: Will Your Vote Count?* Stanford: CSLI Publications.

Kapferer, Bruce. 2010. Introduction: In the Event – toward an Anthropology of Generic Moments. *Social Analysis* 54(3):1-27.

Kelty, Christopher. 2008. Toward an Anthropology of Deliberation. Paper presented at the Society for Social Studies of Science conference, Montreal, October 2008
(http://kelty.org/or/papers/unpublishable/Kelty_Anthro_of_Delib_2008.pdf). Accessed 13.1.2017.

Kelty, Christopher. 2009. Collaboration, Coordination and Composition. *Fieldwork Is Not What It Used to Be*, edited by J. Faubion & G. Marcus, pp. 184-206. Ithaca: Cornell University Press.

Kildebogaard, Jesper. 2013a. E-Valgsforskere Kørt Over af Travle Politikere: Vent dog til Vi Er Færdige. *Version2*, Feb 6, 2013.
<https://www.version2.dk/artikel/e-valgsforskere-koert-over-af-e-valgs-lovforslag-vent-dog-til-vi-er-faerdige-50256>, accessed 8.1.2017.

- Kildebogaard, Jesper. 2013b. Venstre Siger Nej til E-Valg – Lovforslaget Falder. *Version2*. March 21, 2013. <https://www.version2.dk/artikel/breaking-venstre-siger-nej-til-e-valg-lovforslaget-falder-51198>. Accessed 9.1.2017.
- Lessig, Lawrence. 2006. *Code*. 2nd Edition. New York: Basic Books.
- Marcus, George. 1995. Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography. *Annual Review of Anthropology* 24:95-117.
- Meister, Mikkel. 2013. Version2's Læsere Rykker Venstre mod et Nej til E-Valg. *Version2*, March 12, 2013. <https://www.version2.dk/artikel/version2s-laesere-flytter-manden-i-midten-mod-et-nej-til-e-valg-50864>, accessed 8.1.2017.
- Miller, Clark. 2004. Interrogating the Civic Epistemology of American Democracy. *Social Studies of Science* 34(4):501-530.
- Mitchell, Jon. 2010. Introduction. *Ethnographic Practice in the Present*, edited by M. Melhuus, J. Mitchell & H. Wulff, pp. 1-15. New York: Berghahn.
- Moore, Sally Falk. 2005. Comparisons: Possible and Impossible. *Annual Review of Anthropology* 34:1-11.
- Norris, Pippa. 2004. *Electoral Engineering. Voting Rules and Political Behavior*. Cambridge: Cambridge University Press.
- O'Gorman, Frank. 2007. The Secret Ballot in Nineteenth-Century Britain. *Cultures of Voting: The Hidden History of the Secret Ballot*, edited by R. Bertrand, J.-L. Briquet & P. Pels, pp. 16-42. London: Hurst.
- Oostveen, A.-M. 2010. Outsourcing Democracy: Losing Control of E-Voting in the Netherlands. *Policy & Internet* 2(4):201-220.

- Orr, Graeme. 2015. *Ritual and Rhythm in Electoral Systems*. Farnham: Ashgate.
- Saltman, Roy. 2006. *The History and Politics of Voting Technology*. New York: Palgrave Macmillan.
- Sandal, Jesper Stein. 2015. Derfor Stemmer Vi Ikke Over Internettet i Dag. *Version2*. Dec 2, 2015. http://www.version2.dk/artikel/derfor-stemmer-vi-ikke-over-internettet-i-dag-494381?utm_source=nyhedsbrev&utm_medium=email&utm_campaign=v2daglig. Accessed 8.12.15.
- Simons, Barbara & Douglas Jones. 2012. Internet Voting in the U.S. *Communications of the ACM* 55(10):68-77.
- Springall, Drew, Travis Finkenauer, Zakir Durumeric, Jason Kitcat, Harri Hursti, Margaret MacAlpine & Alex Halderman. 2014. Security Analysis of the Estonian Internet Voting System. *Proceedings of the 21st ACM Conference on Computer and Communications Security*, Scottsdale, Arizona, November 3-7, 2014.
- Stenerud, Ida S.G. & Christian Bull. 2012. When Reality Comes Knocking – Norwegian Experiences with Verifiable Electronic Voting. *EVOTE Proceedings* 2012:21-33.
- Strathern, Marilyn. 1988. *The Gender of the Gift*. Berkeley: University of California Press.
- . 1990. Artefacts of History. *Culture and History in the Pacific*, edited by J. Siikala, pp. 25-44. Helsinki: The Finnish Anthropological Society.
- . 2014. Reading Relations Backwards. *Journal of the Royal Anthropological Institute (N.S.)* 20:3-19.

Tocqueville, Alexis de. 2000 [1835-1840]. *Democracy in America*. Volume I and II (Mansfield and Winthrop, transl.). Chicago: University of Chicago Press.

Turner, Victor. 1967. *The Forest of Symbols*. Ithaca, NY: Cornell University Press.

Vadgaard, Anne Kathrine Pihl. 2016. *The Election Machine – Generating Danish Democracy*. PhD thesis, IT University of Copenhagen.

Vestager, Margrethe. 2013. Derfor Skal Vi Afprøve E-Valg. *Version2*, guest blog. Feb 8, 2013. <https://www.version2.dk/blog/derfor-skal-vi-afproeve-e-valg-50341>, accessed 10.1.2017.

Wisconsin Elections Commission 2016. Wisconsin Recount Petition of Jill Stein. Madison, WI. http://elections.wi.gov/sites/default/files/news/wisconsin_recount_petition_of_jill_stein_00268242_12391.pdf. Accessed 13.1.2017.