



# (The domestication of) Nordic domestication?<sup>1</sup>

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#### Abstract

The domestication concept, originally developed in Britain in the context of media appropriation in households' everyday life, has seen a relatively high uptake in the Nordic countries from early on. This was by far not only an application of the concept, but an alternative interpretation with different emphases. I introduce two major strands of this uptake in this article: the Norwegian science and technology studies interpretation, and the primarily Finnish consumer and design research interpretation. These case studies will help answer the question of the degree of Nordicness in these interpretations of the domestication approach. In a last instance, the article aims to address the question what the current – and hopefully future – state of domestication research in the Nordic countries could look like.

Keywords: domestication, Nordic, societal appropriation, design research, energy

### Introduction

I will debate the question of a potential specificity of Nordic theorisations through the lens of a rather specific approach: the domestication framework. It focuses on media use in everyday life, particularly on the appropriation of new media technologies in households. Originally developed within media studies in the late 1980s, domestication its mostly known through its British authors: Roger Silverstone in particular, but also David Morley, Eric Hirsch, Leslie Haddon, and Sonia Livingstone (see Berker et al., 2006). However, in comparison to later European and other uptakes of this approach, there is also a fairly well-developed Nordic streak to the domestication approach that also extends beyond media studies into a wider field of science and technology studies and consumption studies (see also Sørensen, 2006). This developed partly in cooperation with the above-mentioned, but also independently and in distinctly separate fashions. This article traces the early history of the Nordic domestication approach (thus excluding sometimes similar advancements elsewhere), focusing on two rather different developments.

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In conclusion, I will attempt to answer the question of whether the presented approaches can be considered as a particularly Nordic theorisation (and if yes, why). The article will begin, however, with a (very brief) introduction to the domestication concept overall.

### What is domestication?

The domestication of media or technology is an approach describing the process of media (technology) adoption in everyday life – especially within households. It outlines several dimensions of this dynamic process in the context of the household as a moral economy<sup>2</sup> and through the concept of the double articulation of media as technology and content.<sup>3</sup> An interesting feature of the domestication approach are the dimensions of media adoption, which include commodification, imagination, appropriation, objectification, incorporation, and conversion. These dimensions suggest that media are first made (invented, marketed, etc.), then adopted and integrated as objects that find a place in daily routines. They are also used to communicate to the outside world that certain media are used in particular ways. Empirically, the approach has mostly been researched ethnographically and via qualitative interviews, but it has always been open to other kinds of methods.

## Norwegian science and technology studies interpretation

Let me begin the actual journey through the domestication landscape with the approach that came first chronologically: the (mostly) Norwegian emphasis on Science and Technology Studies and their unique interpretation of the domestication concept. It developed partly before, partly in parallel to, the British domestication approach (see also Hartmann, 2013; Sørensen, 2006). The Norwegian interpretation basically shared the understanding of "taming" the technology, but extended the concept on several levels: 1) it did not limit itself to the household; 2) it did not focus on media technologies in particular, but included (in principle) any kind of technology; and 3) it understood the taming process on several levels (individual, group, but also societal). These extensions left little to compare with the original approach in empirical terms, but brought many interesting questions and potential for theoretical underpinnings. One of these was a clear emphasis on a science and technology (or social studies of technology) approach in theoretical terms.

This version of domestication is attached to a particular constellation of people and places. Developed primarily in Norway, mostly in Trondheim, the Norwegian University of Science and Technology (NTNU) and Knut Sørensen played a major role (and still do) in the development of the concept. Sørensen's work, however, was closely embedded within a network of others, for example, Anne-Jorunn Berg, Merete Lie, and Margrethe Aune all appeared as either co-authors, co-editors, or other kinds of influential co-players as well as players in their own right at the time (and again, some still do). Institutionally, the (still existing)

Department of Interdisciplinary Studies of Culture at NTNU, and therein the Centre for Technology and Society, were important environments. Additionally, the "Women and Technology" research group (of the Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology) and Institute for Social Research in Industry were institutional environments that supported the initial formulations. This is important insofar as the development of research and theories here happened as institutionally supported collaborative efforts. This is still the case at NTNU and is visible in the large output being produced. It was always a form of research that also allowed a close (but critical) collaboration with industry (in recent years particularly the energy sector), with an emphasis on policy. European research collaborations were equally crucial in the early days (as they were for the British interpretation). Last, but by far not least, the term interdisciplinary was filled with actual empirical work in this case.

Content-wise, the 1990s were characterised here by a particular focus on gender and technology (e.g., Berg & Lie, 1995) and the idea of technology appropriation in the widest sense of the word. Domestication as a concept appeared in many of these studies as a reference point. In a first instance, it was defined rather simply: "What is constructed through domestication may be understood as micro-networks of humans, artefacts, knowledge and institutions" (Sørensen et al., 2000: 241). It was the focus on users that domestication offered that sparked the initial Norwegian interest (Berg & Aune, 1994; Berg & Lie, 1995; Håpnes, 1996). Domestication was seen as a way of theorising the cultural appropriation of technology with an emphasis on both practice and meaning-making. Artefacts needed to be acquired, placed, interpreted, and integrated into social practices (Sørensen et al., 2000). However, in contrast to the British counterpart, the same authors stated: "Domestication is done by individuals or households as well as institutions and other collectives, even nations" (Sørensen, 1996: 10; see also Wagner, 2009: 2). Their version contained the idea of scalability, which allows a much broader perspective to emerge.

Sørensen (1994) also explained that infrastructures are an important part of these domestication processes, taking the car as an example. The car underlines the intertwined nature of technologies, policy, cultural frames, and much more; a car needs roads and fuel stations, it needs parking lots and repair pits, it needs an infrastructure for delivering new cars and for getting rid of old ones, and so forth. But it also, on the most basic level, needs someone to drive it. At the same time, the car underlines that domestication provides the link between invention and design, and innovation – but also a connection to the public framing and cultural setting (See Hartmann, 2006, for the question of domestication taking place on the level of discourse, or Bolin, 2010, for the question of domestication in a cross-cultural comparison). This applies to the car just as much as it does to multimedia (Brosveet & Sørensen, 2000). Another way to frame this link can be seen in the discursive domestication taking place in media representations. As Saariketo (2018) shows, the Finnish press clearly shaped how the smart wearable

technology Google Glass would be perceived by the public, and also, therefore, how it was appropriated (or not). Individual domestication processes are always embedded, and "doing technology" is therefore a multi-actor process (Sørensen, 2006), performed – amongst others – in appropriation on the micro-level (Sørensen, 1994: 18). For Sørensen, the mirco-level is a small network of relationships – in terms of the car, "between the driver, the car, the passengers and the physical and cultural environment to the style of driving" (Sørensen, 1994: 18) – which is both contingent and conflictual, sometimes tamed via routines.

On a theoretical level, Akrich's (1992) concept of the script – or the inscription of the designers into the technologies – and Latour's (1992) idea of the anti-programme – or the users' adaptations – keep reappearing in the Norwegian domestication approaches (see, e.g., Korsnes et al., 2018). Hence, any inscription could potentially be turned on its head – or rather, the appropriation of technologies is a complex interplay between inscriptions and adaptations – a complexity that the domestication concept always underlined.

More recently, a number of Norwegian studies on domestication have themselves once again returned to the home in a continued emphasis on energy and its consumption (e.g., in an analysis of zero-emission buildings and their appropriation, see Berker, 2011; Korsnes et al., 2018. But see, e.g., Juntunen, 2012, for Finland; Jensen et al., 2009, for Denmark; Löfström, 2008, for Sweden). This is closely linked to the second case study: the question of both consumption and design research and domestication. As the studies on energy houses have shown, the move into invisibility and the related trivialisation of technologies – an important aspect in the domestication literature – is not always helpful when particular behaviours are the goal, as, for example, in zero emission buildings. Technologies that become so routinised that we forget we own them sometimes need to be "reawakened". This is where design comes in.

## Finnish consumer and design research interpretation

Since one of the core texts of the early domestication approach theorisation is entitled "Design and the Domestication of Information and Communication Technologies" (Silverstone & Haddon, 1996),<sup>4</sup> it is not surprising that designers and design researchers picked up on the concept. They, too, domesticated it.

From their perspective, the domestication approach emphasises the user and usage after the initial design process – but it also opens up the possibility to involve the user *in* the design process. Especially the latter was taken up in Finnish design research in the 1990s and further developed in the 2000s. Exemplary for this uptake is Routarinne and Redström's (2007) text *Domestication as Design Intervention* (a Swedish-Finnish collaboration presented as a conference paper). It concentrates on the question of the development of (experimental) prototypes and their uses, interpretations, and appropriations in everyday life. Content-wise, we are again dealing with energy – that is, energy-awareness. <sup>5</sup> The domestication

framework aids with the inclusion of users in the design process rather than only post-factum; the experimental nature of the prototype allowed users to develop their own ideas. This approach is – as design research in general can be – an expression of an unusually proactive kind of academic engagement, since design wants to actually intervene in people's lives. This application of the domestication approach became more widespread in Finnish design studies during the late 1990s and early 2000s, which even led to its inclusion in design research and education (Keinonen & Koskinen, 2007; Koskinen & Kurvinen, 2005). In design research at Aalto University today, traces of this can still be found, again with similar topics (e.g., emerging technologies or small-scale renewable energy systems, see Juntunen, 2012).

Interestingly, Finnish consumer research also picked up on the domestication concept early on, but this does not seem to have filtered much into design research (and vice versa). Here instead, we have a case where researchers mostly related to the same outside sources (such as the British domestication concept), but not each other. Hence, geographic or cultural proximity did not (and does not) guarantee recognition of each other's work – the boundaries of one's subject area often prohibit this.

In the consumption field, the earliest text was Mika Pantzar's (1996) book Domestication of Technology: From Science of Consumption to Art of Consumption (in Finnish). Pantzar, then based at the National Consumer Research Centre under the Ministry of Trade and Commerce, soon after published a summary article in English in 1997 – a rather broad take on domestication. As a consumption scholar, his main interest was in the diversity of ways through which commodities enter individual everyday lives and society overall. He used media technologies (television, radio, personal computer, and telephone), but also the car and the bicycle, to exemplify his ideas. His theorisings range from the biography of things over social shaping of technologies, to actor-network theory - he refers to this approach as the ecology of goods. The innovation in his approach at the time lay first of all in the emphasis on the broader picture, exemplified in statements such as, "choosing a certain form of transport can lead to a certain type of lifestyle, which in turn increases demand for the form of transport which originally shaped that lifestyle" (Pantzar, 1997: 9). More specifically, in terms of the domestication approach, he concentrates on the changing determinants of consumer choice as forms of appropriation (cf. Lehtonen, 2003). One such move is a commodity which is first, as Pantzar calls it, a sensation, then routine (e.g., the car or the toy), which later becomes an instrument (as most media technologies). While sensation is not explained in detail in the summary article, Pantzar underlines that the spontaneous and the different are initially present in these commodities, but tend to gradually disappear and shift instead to the normative and well-known – to the routine. While necessarily reductionist, these patterns can be used to describe the changing emotional engagement with certain devices. While Pantzar's text (re-) introduced the domestication concept into the Finnish consumption studies field and located it on this axis of the afore-mentioned theoretical approaches (actornetwork theory, social shaping of technologies, etc.), it remained – at least in the English version – a conceptual proclamation only.

Overall, domestication, while less prominently enforced than in the last decade, still features strongly in Finland today. There is, however, not a Finnish "school" only.

## The domestication of everything?

There is clearly no limit to the kinds of technologies that the domestication concept can be applied to when we consider Nordic approaches. It has not only been applied to cars and energy-aware cords, but also fibre-broadband (Bertelsen & Christensen, 2008), e-government channels (Østergaard Madsen & Kræmmergaard, 2015), the domestication in and of magazines (Routarinne, 2005), digital gameplay (Enevold, 2014), the Ebox (Aune, 2001), foreign ideas (Alasuutari, 2015), and assisted reproductive technologies (Lie, 2015). Plus, more "traditional" forms of information and communication technology domestication have equally been studied (early on by Telenor and Nokia researchers, especially, e.g., Ling, 2004, and more recently, Bertel, 2013, and Christensen, 2007, 2019). The question of the home and the household has also not entirely been lost in these approaches – it tends to sometimes reappear in a new shape (as in Møller & Nebeling Petersen's 2018 study on gay hook-up applications). Additionally, any attempt to locate the Nordic could also have focused on Denmark or Sweden – their uptake, however, has been even more clearly linked to the British media studies origin.

## Nordic by nature?

What, then, is specifically Nordic about all this apart from the countries that the studies and approaches were developed in? To reiterate: many of the Nordic approaches to domestication emphasise technologies of any kind and offer contexts beyond the household – gender and emancipation are also major topics here. A methodological openness (development of new methods in the process) opened the concept of domestication up to its application in consumption and design contexts.

There are several more possible answers to the question of the Nordic (with a pinch of skepticism towards potential essentialisms). Next to the above mentioned, I would like to introduce Gregory's (2003) take on Scandinavian approaches to participatory design as a possible angle. She therein explores three supposedly distinctive features: first, a strive for democracy and democratisation; second, explicit discussions of values (in design and the related imagined futures); and third, an emphasis on conflicts and contradictions as resources in design. This emphasis on democracy is clearly one that is attributed both from inside and outside the Nordic countries (often related with an emphasis on the welfare state – and its

demise). Values and conflicts are less prominent in the description of the Nordic – they fit the domestication concept rather well though, since it features the moral economy as well as the question of ontological security. Values also fit the early enthusiasm for a human-computer interaction and design nexus with a democratic focus in the Nordic countries. Hence, Nordicness is related to values of equality and their implementation. As such, the domestication concept can be considered fitting, although its extension beyond the household makes this an even better fit.

A different reading of the Nordic could be the idea of purity and clarity, as it can be found in the Nordic kitchen, Nordic design, and so forth. While this might be important for the way someone domesticates something, it is of less relevance in the question of domestication as a concept. One aspect, which we have also seen elsewhere, appears here: ethical implications. Purity is delivered with ethical guidelines. Here again, we are not only reminded of the moral economy, but also of the focus on energy and energy reduction that has come to the forefront in recent years – as well as the idea of design interventions as tools for nudging.

The focus on energy is partly related to industry structures and so forth (oil in Norway), to housing patterns (second homes) and similar issues. In many ways, the research is indeed shaped by the natural resources in the surroundings – and the subsequent economic and social factors derived from it. Hence, in this sense, there is indeed a Braudelian *longue durée* at play here, emphasising the specificity of the surroundings. A closer look at the history of institutions and their policies (as hinted at in Keinonen & Koskinen, 2007) would probably help to further trace these trajectories.

For the development of the domestication concept, however, the most interesting aspect lies in the additions to the original concept that have emerged over time. One example for this is the idea of reverse domestication (Karlsen & Syvertsen, 2016). In reverse domestication, the process is "turned back", that is, similar dimensions occur in these processes as in domestication processes themselves, but the aim is actually – at least in the example cited – to reduce media use and similar habits. Elsewhere, we find pre-domestication (Saariketo, 2018), re-domestication (Bertel, 2013), or dis-domestication (Hebrok, 2010), all of which could be argued to be already contained in the original concept. On the other hand, each concept offers an emphasis that the original does not have, which therefore opens up new avenues for empirical research.

An earlier version of this has been Helle-Valle and Slettermeås's (2008) reconceptualisation of domestication beyond the domestic. They wanted to use the domestication concept to simply describe general appropriation, or taming processes – rethinking it as language games. This is similar to the aforementioned reconceptualisations insofar as the original concept was open enough to allow such a reading. At the same time, the move to leave the domestic environment behind has been, as I hope to have shown, one of the strong points in the Nordic versions of domestication. Additionally, Löfgren's work could extend the original conceptualisation in provocative ways, when he considers, for example, haunting

objects, or objects that we keep somewhere (e.g., hidden in the basement), because they provoke mixed emotions (Löfgren, 2009). He has asked similar questions of the adaptation of objects into everyday life, or about the broader question of the national domestication of culture (Löfgren, 1989), but is generally not cited enough in domestication research.

Overall, I would suggest the domestication concept in the here presented versions is "Nordic *light*". It is specific enough in the aforementioned aspects, but one should not overestimate its Nordic nature. Rather, the ideas that focus on democracy and ethics – even in relation to domestication – are not limited to these countries; however, they were developed rather early in these contexts and are still thriving.

The field as it plays out at the moment, however, contains a couple of emphases and several challenges. First, there seems to be one clear-cut trend to simply apply the domestication concept as a useful framework (and analytical tool) to understand technology appropriation by users in everyday life. This is a useful application with important research outcomes, but involves little extension on the theoretical side (one way to extend this would be a meta-analysis of all these studies to see whether other kinds of patterns emerge). Another is a slightly more ambitious trend to extend or change the original concept (as also hinted at above). We need exactly such theory innovation, since the framework itself has not seen much radical innovation in recent years - be it in the Nordic or other versions. (The emphasis is on the radical. For reflections on the changing nature of domestication studies over time and its international uptake, see, e.g., Haddon, 2006, 2016.) This, however, has been the strength of the Nordic application in earlier times. Another wave of Nordic intervention and innovation would be great to see in future. Or maybe domestication has been domesticated so much that any wildness is now impossible to revive? As Bausinger (1984: 351), an important reference in early domestication, stated: "A bit of wild thinking is needed to catch and describe this complex world in all its rational irrationality". A return to the wilderness – a reverse domestication of the concept – would be very helpful.

#### Notes

- 1. I am grateful to the journal for giving me the opportunity to re-regard the domestication concept through this particular lens. I am also grateful to my two anonymous reviewers for their valuable comments. Any omissions are entirely mine.
- 2. The concept of moral economy draws attention to the idea that people strive for ontological security, while this is also a social transaction process where media enter the home and values and experiences are "traded". This concept approach has been criticised, for example, by Andrew Feenberg (1999: 107), who described it as "too cozy" and argued that agency must be emphasised more (Silverstone responded to this in 2006).
- 3. The double articulation concept characterises media as both material consumption objects and content providers. Later, context was added to enlarge the concept to a triple articulation (Hartmann, 2006).
- 4. Here, the core idea is that domestication starts much earlier than in the acquisition of a new technology and the subsequent adoption into household and quotidian routines. Instead, the design process is extremely important both for what and how things can be domesticated later on, but also as elements of domestication as such. Silverstone and Haddon (1996) describe this as part of the domestication process, but most of their empirical work does not consider this aspect.

- 5. A similar example can be found in the Awarecord, in which electricity usage is visible in terms of the level of consumption (through a glowing mechanism) (Gustafsson & Gyllenswärd, 2005; see also Hartmann, 2018). As part of the development of the cord, a small domestication study in five households was conducted (Löfström, 2007, 2008).
- 6. I am grateful to one of my reviewers for pointing this out.

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