

things, which may prove fruitful to the community if an innovation fails. Furthermore, the reasons why some need a long time to adopt, or never do, provide valuable feedback that can be used for improving the innovation in question. (ibid., 282–85; cf. Wyatt 2003.) As shown in Publications 1 and 4 dealing with platform adoption, demosceners do not represent only one of these categories, but all of them.

*Variables Determining the Rate of Adoption of Innovation* serves as a useful starting point and checklist when considering the various reasons as to why an innovation is adopted faster or slower. Quite evidently, the properties of the product or idea count, but several social factors are involved in the process as well. Decisions are not always made by individuals, as the adopting unit might be an organisation or as large as a nation. The social system in question has its own norms that affect the perceived acceptability of the innovation. Communication channels ranging from interpersonal to mass media are the necessary prerequisite for the distribution of new ideas and products. The last variable is the efforts of the change agents trying to further their own agenda, be it commercial, educational or governmental. (Rogers 2003, 222–59.)

The concept of *reinvention* is highly relevant when considering the demoscene and its use of computers. As defined by Rogers (2003, 181) it refers to “[...] the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation.” As we are dealing with a commercially marginal sector of consumers, it is unlikely that their needs would be considered when designing new computers for the mass market. Demo viewing and creation are by no means common uses for digital devices, yet that is exactly what the enthusiasts do, thereby reinventing the purpose of the product. Eglash (1997) breaks reinvention (although calling it appropriation) into three categories: reinterpretation, adaptation and reinvention, which reside at different points on the consumption–production axis.

Like any theory, diffusion too has received its share of critique, some of which is addressed in the later editions of *Diffusion of Innovations* itself. One recognised shortcoming in diffusion studies has been the tendency to side with change agents, positivistically focusing on successful adoption and omitting the imperfections of the process (Rogers 2003, 106–26). The theory of diffusion has also been criticised for being linear and overtly rationalistic, which was one of the reasons for the emergence of the largely European *domestication* discourse that tries to address the shortcomings (Berker et al. 2006). For a more in-depth discussion on the origins and development of the concept, see Silverstone (2006).

Without the need to pick sides I, on the one hand, recognise the reasons why Rogers' theories can be labelled as rationalistic: presenting overarching models of how adoption takes place runs the risk of simplifying the endless complexity of human behaviour, while on the other hand, the models offer an exceptionally holistic view to the topic and make the process clearly understandable. Domestication studies, which are typically of qualitative nature, come with their own models – plenty of them – but there is no underlying grand theory that would be shared by the authors representing the paradigm. As the name suggests, domestication research is more focused on personal use and the domestic scope, whereas diffusion aspires to address adoption by organisations and other large social systems as well.

Starting from the late 1980s and early 1990s, multiple domestication researchers have looked into how digital technology is received and appropriated by its users. Margrethe Aune's *The Computer in Everyday Life: Patterns of Domestication* (1996) describes how information technology arrived in Norwegian homes. She divides the interviewees into categories, such as “extenders”, “explorers” and “game-freaks”, based on their activities and style of work. Even if not called that, Amiga sceners and crackers are mentioned as part of the “game-freaks” category. A notable gap between male and female users is evident in her study: enthusiasts were mostly men in the early 1990s. (ibid.)

Another representative of Norwegian domestication studies is Tove Håpnes' *Not in Their Machines: How Hackers Transform Computers into Subcultural Artefacts* (1996). Keeping in mind that hackers are not quite the same as demosceners (Section 4.2), Håpnes' paper offers a relevant point of comparison. She recognises how the meanings that users assign to computers are not inherent or given, but created through a *negotiation process*. Many other findings sound familiar as well: for instance, the users that she calls “real hackers” considered themselves as a unique group that operated outside the mainstream of computing. The creative aspect, embraced by the demoscene, was present in her hackers, too. (ibid.)

Not unlike diffusion, domestication studies emphasise how cultural adoption is, above all, a process (e.g. Aune 1996; Håpnes 1996; Lehtonen 2003). Silverstone, Hirsch and Morley's (1992) influential four-phase model of domestication is a foundation several later works have built on:

1. *Appropriation*: the artefact is acquired by an individual or a household.
2. *Objectification*: the artefact becomes part of the physical environment it is in.