Mark where the citations are in effect (done!)

In his later account, Manovich (2013,10) steps back from pure computer science and adds the effects of cultural, social and economic factors to the scope of software studies. Likewise, *Software Studies: A Lexicon*, a collection of critical essays from 2008 shows how different perspectives are possible when discussing software (Fuller 2008). Schäfer (2011, 65–66) goes even further in his *Bastard Culture!*, stating that it is nearly impossible to separate technology and culture when dealing with software.

One more well-known connection between the scene and games comes from the game industry. There is plenty of evidence concerning the demoscene roots of a number of notable game companies, such as Remedy, Housemarque and DICE (Saarikoski and Suominen 2009; Sandqvist 2012). Along the same lines, popular discussions repeatedly mention sceners' successful careers in the industry (Kauppinen 2005; Lappalainen 2015, p.11). Furthermore, parties have served as recruitment opportunities for ICT companies (Tyni and Sotamaa 2014).

The evaluation of 250 demos created for various legacy hardware (and software) platforms highlights the importance and high quality of open-source emulators. Already in 2008 most tested productions ran fine on C-64, Amiga, and Atari ST(E) emulators, while the results for the IBM PC compatibles were less impressive. Demos are not distributed in uniform file formats and the information stored with them is not necessarily machine readable. (Woods and Brown 2008.)

Along the same lines, Christina Lindsay emphasises the role of the user community in preserving and expanding the Radio Shack TRS-80, one of the earliest commercially produced home computers. After the commercial obsolescence of the TRS-80, only a small portion of the early users stayed in the community – but they did. (Lindsay 2003.) Even if the TRS-80 never was a popular demo platform, Lindsay's findings resonate with my observations on the demoscene and its machines, as discussed in the following sections.

The most evident challenges, deteriorating storage media ("bit rot") and dying hardware, are only one part of the picture, and not equally relevant for productions of different ages. Another notable difference springs from the commercial and proprietary nature of video games: to curb piracy, game companies introduce various Digital Rights Management (DRM) measures, which are further supported by stringent copyright legislation that makes it legally impossible to create archival copies (Anderson 2011; Newman 2012, 137–9).