Chapter 69

The Trouble with Digital Copies:
A Short KM Phenomenology

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ABSTRACT

This chapter analyzes some of the most relevant ethical issues and social dilemmas in knowledge management and organizational innovation, by focusing on a paramount feature of digital technology, which is “copying.” The new ways in which information is produced, distributed, and shared in digital environments have in fact changed crucial aspects of human life. Whereas, most of the time, scholars consider such transformations in connection with the impact of digital copies on copyright law, the aim of the chapter is to widen this perspective by examining data protection as well as file sharing application systems. The new economical scenarios and business models proposed by this copy-based technology suggest new ways for balancing property rights and “the right to freely participate in the cultural life of the community.”

INTRODUCTION

Both the structure and functioning of the Internet are founded upon distributed storage and replicated copies of the data to be transmitted among the nodes of the network. While such new ways in which information is produced, distributed, and shared in digital environments have transformed crucial aspects of human life, they have also changed the very notion of “copy,” since, theoretically speaking, there would no longer be any difference between the original and the replica. In order to offer a short (but hopefully comprehensive) phenomenology of this paramount transformation, this chapter is presented in six sections.

First of all, I delineate the background from an economic viewpoint, emphasising how the traditional “long route” between creators/producers and consumers has been joined- and even replaced- by a “short route” (up to the point where we talk about the new category of “prosumers”). Even though the impact of such an impressive innovation was initially perceived in the field of
intellectual property and, more specifically, in the realm of copyright law, the paradox of a copy-based technology which has changed the very notion of copy has quickly extended to other areas.

In particular, I analyse how legislators and courts have reacted (and even overreacted) to changes and challenges brought on by the technological revolution. By comparing the U.S. and EU legal systems, it should be clear that the trouble with digital copies does not only concern copyright but privacy as well.

Hence, I illustrate some ways for balancing the various fundamental rights involved in file sharing application systems- namely P2P networks- as proposed by some projects such as FairPeers. Whereas the troubles with digital copies affect a number of other relevant areas like open access to the public sector information, executable programs, or traditional publishing, P2P systems clearly show how it is possible to harness the new economical scenarios and business models of the “short route” by sharing profits (and not only files) among users, while reinforcing responsibility and protecting people’s personal data.

Of course, as I explain in the section on future research directions, further work is required on pseudonymous systems, reputation modules, trusted management, or recommender schemes, to name but a few. Nonetheless, the conclusion is that sound workable ways of balancing the different interests which are at stake are already viable. The potential contrast between fair compensation and privacy rights, between knowledge creation and digital sharing, can represent in fact an opportunity for organizational innovation. The trouble with digital copies does not only concern copyright after all.

**BACKGROUND**

In order to understand what has changed with the introduction of digital copies on the market, let me shortly illustrate the diverse phases and services of the traditional value chain of a media object (e.g., a music album). As I proposed with Glorioso & Ruffo (2010), the different activities and services may be distinguished in four different steps.

First, we have the authoring phase in which an artefact is created. Sometimes this phase includes a pre-production stage as with the preparation of a demo tape to be presented to a content producer. Then, the production phase starts with individual contracts between authors and business organizations such as record companies, publishers, and the like. The artefact is usually refined by a team of professionals, and finally copied on a given physical support (e.g., a CD).

Thirdly, what has been produced needs distribution according to a marketing strategy. Physical objects are then shipped all around the world (or a single country), so that the cost of the item increases as it is delivered to the distributed network of malls and shopping centres by means of transportation service-suppliers. Finally, there are the clients or consumers: they ideally close the chain by paying a price that covers all of the costs of the work which increase with every single step of the cycle.

In a nutshell, this is the traditional “long route” known for decades and, in some cases, even centuries in the pre-digital world. Records had to be printed and, therefore, some sort of manufactory was indispensable to produce “fixed, stable, material or- as the expression now goes- hard copies of the work” (Ricolfi, 2007, pp. 285-286). Whereas such hard copies had to be stored, transported, and distributed before they could eventually be purchased by the public, it goes without saying that most of the authors could not engage in all these phases. The rule, on the contrary, was that “they preferred to resort to businesses to set up the characteristic trilateral relationship between creator, business, and the public, which is typical of primary exploitation of copyrighted works” (Ricolfi, 2007, pp. 286). Besides, the secondary exploitation of the artefacts required an even longer route, because further classes of businesses and