

Abstract

After years of constant growth, the music industry is, at present, in a serious crisis. The extent becomes obvious, in particular, on the basis of the substantial losses in revenue and sales in recent years. For example, the sales of sound storage mediums declined in 2003 in Germany by almost 20%. In addition, the resulting economic implications from this are already visible. Consequently, a number of record companies have significantly reduced their staff and their portfolio of artists. Furthermore, consolidation in the music industry has increased. Indeed, the future development is highly uncertain, but, nevertheless, most experts agree about the fact that the crisis in the music industry will continue in the years to come.

While the causes of the current crisis are largely contentious, the representatives of the music industry predominantly assume that this is a consequence of the rising extent of unauthorised copying. Therefore, the music industry reacted thus far with almost repressive measures, like the broad adoption of copy protection on compact disks. Since these are afflicted with a multitude of problems, the tightening of copyright protection represents the central claim of the representatives of the music industry. But this measure is also strongly disputed, since it implies a number of negative economic effects, for example, the increasing monopoly power of the right holders. Apart from the necessity for copyright protection as such, the question about its welfare-optimal level arises.

In order to answer this question, a number of models already exist. However, these are suitable only to a limited degree to answer the referenced question in the context of sound storage mediums, since they neglect the characteristics of the good ‘music’, and here in particular the existence of network effects. Network effects arise here from the fact that the possibility of communication with other consumers represents a substantial utility component. Moreover, since the good ‘music’ is an experience good, too, this communication is of great importance. Therefore, within this work, an economic model is developed which analyses the copyright protection of sound storage mediums and also includes network effects. On the basis of this model, the question to be answered is whether and to what extent the tightening of copyright protection of sound storage mediums is socially desirable.

To gain a better understanding of the current crisis of the music industry, first their structure is examined. Here it shows, in particular, that the music industry was always affected by basic technical and legal conditions. Besides, it shows that its structure is extremely complex due to the many special characteristics of the good ‘music’ and due to the complicated legal environment. Furthermore, it becomes apparent that the extent of the current crisis is not unique from a historical point of view, and that it is predominantly a structural crisis. In addition, the analysis of the phenomenon of unauthorised copying clarifies that this is an extremely multilayered phenomenon and that its effects on the music industry are still ambiguous.

Apart from the market structure, the technical environment of the music industry is also analysed. Here it shows exemplarily on the basis of the compression algorithm MP3 and on the basis of P2P-networks that the music industry is strongly influenced by the technical development. The present great efficiency of both techniques becomes apparent and furthermore, it shows that this will continue to increase also in the future. In addition, it shows that technical preventive measures are no adequate substitute for copyright protection, at present, due to their numerous legal, technical and economic problems.

The music industry is not only influenced by technical developments, but also by basic legal conditions. The analysis shows that, in a historical point of view, the protection of intangible goods is a recent phenomenon. In addition, it shows that the ‘German Copyright Law’ (UrhG) grants the right holders a multiplicity of partly extensive rights and that their infringement might imply a series of legal consequences. Altogether, this reveals that the protection level in Germany is at a high level. Furthermore, the analysis of corresponding European Directives and international agreements shows that the international copyright protection is well developed, too. Finally, from the legal perspective, the question arises whether the further extension of the national and international copyright protection propagandised by the right holders is advisable.

In addition to practical aspects the theoretical foundations of the economic analysis of copyright protection are also discussed. This shows that the supply of intangible goods is a fundamental problem in economic theory. Furthermore, the analysis of the empirical and theoretical literature in that field shows that the considered models arrive at significant different conclusions. This is especially true with regard to the matter of the scale and of the effects of unauthorised copying, as well as with regard to the evaluation of the incentive effects of copyright protection. It also shows that their results also strongly vary by their assumptions. Therefore, no general statements about the need and the welfare-optimal level of copyright protection can be derived from the examined works.

Because of this, a model is developed which also considers the existence of network effects. Here it shows that the existence of network effects can be explained with present models and with the help of the ‘signaling theory’. The analysis of our model, in addition, shows that the welfare-optimal level of copyright protection depends on the cost structure of the copyrighted good, on the copying technology and on the overall economic importance which is attached to the dissemination of the considered good. Therefore, no welfare-optimal level of copyright protection exists for all kinds of goods, but it shows that, in general, neither the abandonment nor a maximum level of copyright protection results in a welfare optimum. With regard to sound storage mediums and their special characteristics, an intermediate level of protection seems to be appropriate.

Altogether, in consideration of the results of the present analysis, it seems to be disputable that a further tightening of copyright protection is a suitable long-term measure to overcome the current crisis of the music industry. Therefore, the development of new business strategies seems to be a more adequate option for the record companies.