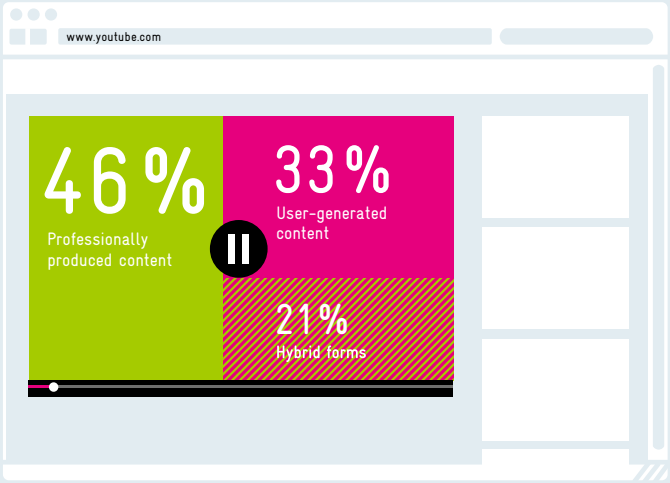
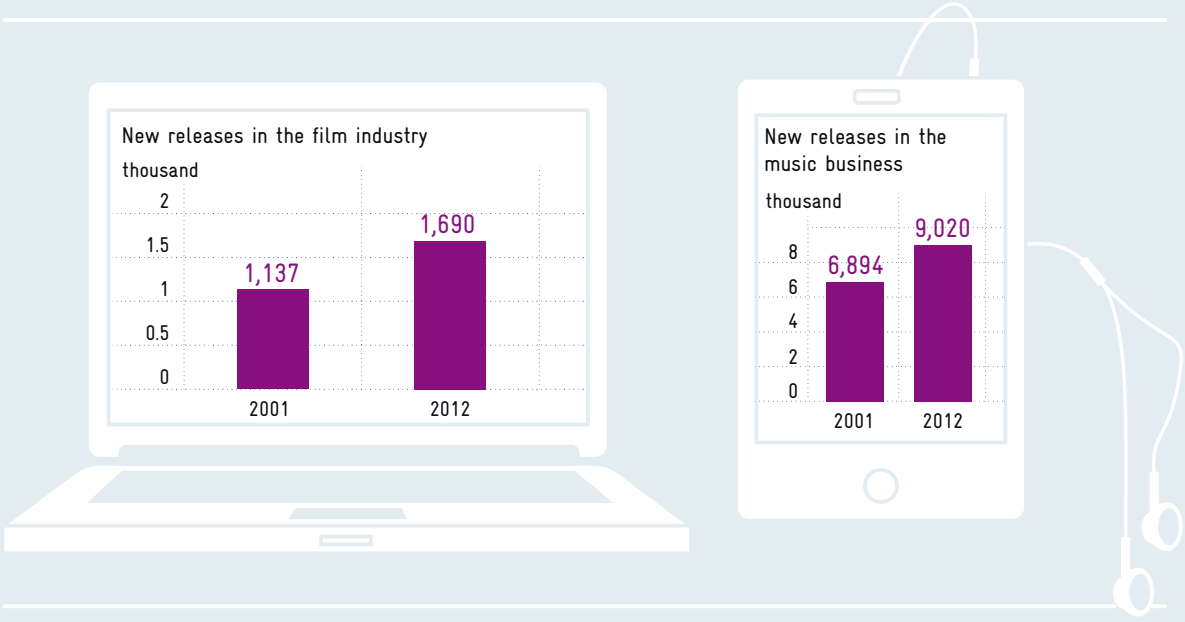
Digital innovation and the need for reform of copyright law

Copyright is the societally most important legal instrument for supporting creativity and innovation – it affects citizens to a much greater degree than other legal institutions. The design of copyright law is therefore not only a matter of legal policy, but also of innovation and economic policy.

User-generated content as innovation by new actors

On the basis of a random sample of 500 Videos on YouTube, a recent study comes to the conclusion that many contributions are created by private users.





48.50 EUR
Expenditure per quarter on digital products by users whose conduct is perfectly legal.

112.47 EUR
Expenditure per quarter on digital products by users who buy legal and illegal products.

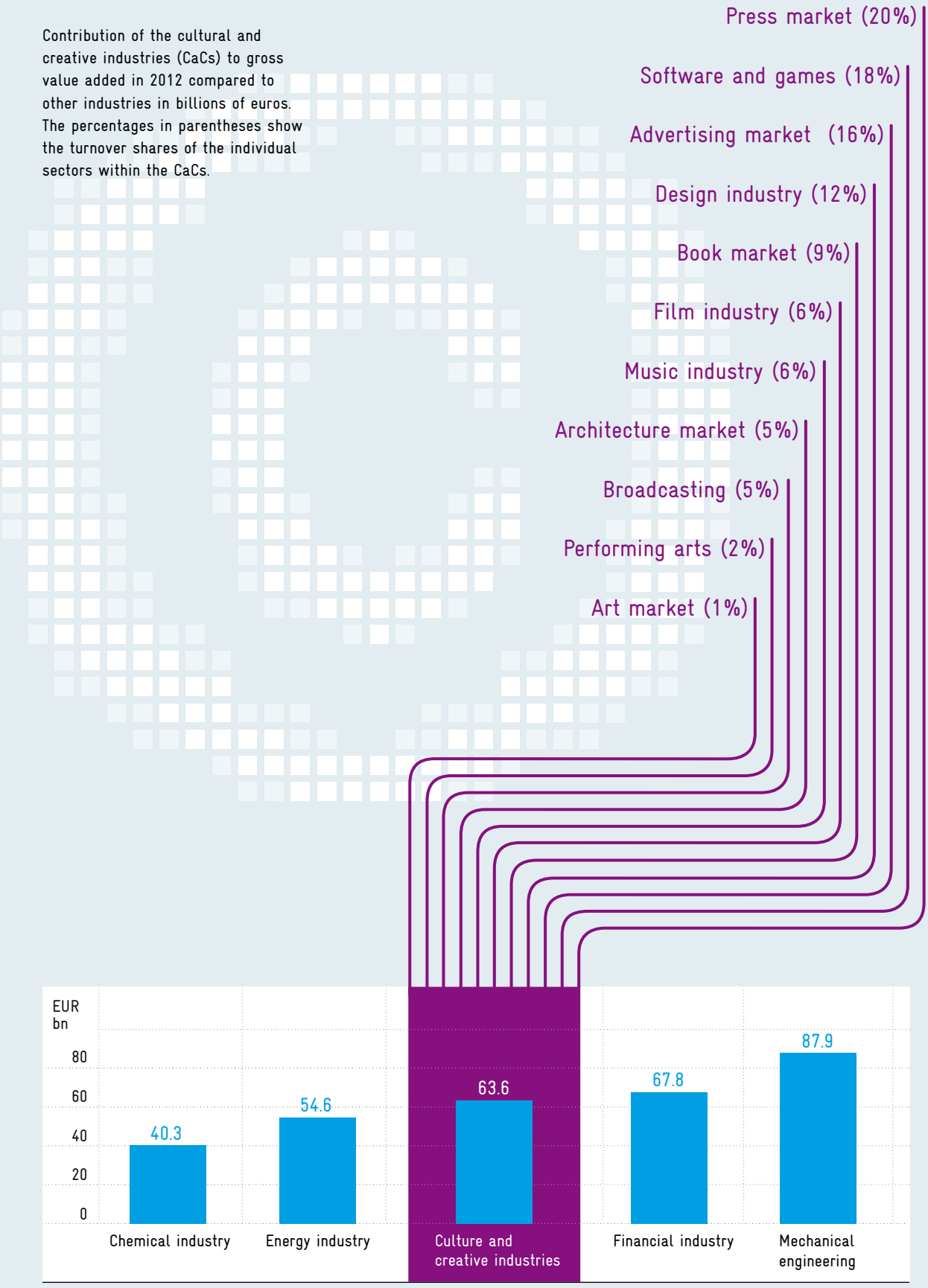
39 %
of users don't know which internet channels are legal or illegal.

Source: Own depiction based on Handke et al. (2015) and Ofcom (2013).

Data Download

Relevant sectors: culture and creative industries

Contribution of the cultural and creative industries (CaCs) to gross value added in 2012 compared to other industries in billions of euros. The percentages in parentheses show the turnover shares of the individual sectors within the CaCs.



Source: Own depiction based on BMWi (2014).

B 3 Digital innovation and the need for reform of copyright law

B 3-1 Aims and importance of copyright law

Copyright law plays an important role in the discussion on the challenges of digitisation and connectedness. The Digital Agenda 2014–2017, which was adopted by the Federal Cabinet on 20 August 2014, is a component of economic and innovation policy. It explicitly refers to copyright and identifies areas where there is a need for reform. The Commission of Experts is examining copyright because it is of fundamental importance for Germany's scientific and economic competitiveness. This complements a discussion that is usually held in the sphere of legal doctrine, adding an economically oriented perspective on copyright and its role in the innovation system.

Great economic and societal importance of copyright law

In Germany the protection of creative works is anchored in the Copyright Act (UrhG), the Law on the Administration of Copyright and Neighbouring Rights (WahrnG) and the Publishing Act (VerlG). Copyright law is part of German civil law. While industrial property law (e.g. patent and trademark law) protects intellectual property in the commercial field, German copyright law aims to protect intellectual property in the cultural field. Literary, scientific and artistic works are protected by copyright law. The first international harmonisation of copyright law was

Box 08

Actors and responsibilities

Copyright law in Germany is subject to a range of different stipulations of international, EU and national constitutional law. The relevant provisions of international law are the Revised Berne Convention (RBC), the Universal Copyright Convention (UCC), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Treaty on Intellectual Property of the World Intellectual Property Organisation (WIPO).

The international conventions guarantee copyright holders certain minimum rights, such as a period of protection of at least 50 years after the originator's death. Furthermore, any limitations on protection (exemptions from law) must pass the so-called three-step test.[204] Related, albeit weaker rights are granted to performing artists, phonogram producers and broadcasting organisations.[205]

Stipulations of EU law are generated by the case law of the European Court of Justice. However, there is no general copyright directive in the EU to date – unlike the field of trademark and design law. A relatively far-reaching harmonisation was achieved by the 2001 Directive on Copyright in the Information Society (InfoSoc Directive). Numerous other directives regulate specific areas and the enforcement of legal claims.

Nevertheless, many legal scholars interpret the current situation relating to copyright in the EU as being in need of improvement.[206] particularly ambitious approach towards a comprehensive harmonisation would be the creation of an EU Copyright Ordinance. Detailed proposals for such an ordinance have already been developed. For example, a group of European scholars have presented a draft European Copyright Code, which is usually referred to as the "Wittem Code" after its place of origin.[207] A less ambitious step forward – but a step forward nevertheless – would be a uniform EU copyright directive.

Box 09

Culture and creative industries

In the "Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2013" (BMWi 2014b), the culture and creative industries are defined as all cultural and creative enterprises that are mainly market-oriented and deal with the creation, production, distribution and/or dissemination through the media of cultural/creative goods and services. The "cultural industries" comprise nine submarkets: music industry, book market, art market, film industry, broadcasting industry, performing arts market, design industry, architecture market and press market. The "creative industries" are made up of the advertising market on the one hand, and the software and games industry on the other. The culture and creative industries thus comprise a total of eleven submarkets.

completed in 1886 with the Berne Convention for the Protection of Literary and Artistic Works (cf. Box 8).

Activities relating to copyright have economic relevance. In its "Monitoring of Selected Economic Key Data on the Culture and Creative Industries 2013" (cf. Box 9) the BMWi states in a comparison of industries that this sector contributed EUR 63.6 billion to gross value added in 2012 – more than the chemical (EUR 40.3 billion) and energy (EUR 54.9 billion) industries and only slightly less than financial service providers (EUR 67.8 billion).[208]

If the societal importance of property rights is measured by the number of citizens who come into contact with them and whose behaviour is significantly affected, then copyright law is probably the most important public instrument for protecting creativity and innovation – compared to patent or trademark law.

An innovation in the context of the creative and cultural industries is defined as "content generation", i.e. the first completion of a creative work, e.g. a film or video game.[209] Innovations also include technologies and business models that help create, disseminate and further process such works. Moreover, technical or service innovations affect structural change in the copyright industries, e.g. when new media technologies like e-books or MP3 players come onto the market, or new business models – like YouTube or Spotify – emerge that make digital content available on platforms in the internet.

Excessively long copyright terms are obstacles to innovation

The economic rationale of copyright law is that the copyright owner may exploit his or her own work exclusively and thus exclude other market participants from its use and exploitation for a specific period. Profit expectations from exclusive use generate individual economic incentives for creative output and ensure that the provision of copyright-protected works leads to an increase in societal value added.

Evidence from the economic literature suggests that the law has a positive incentive effect. However, economists tend to be sceptical about the most recent extensions of terms of copyright.[210] Various historical studies imply that copyright protection generates positive economic effects via higher incomes and a larger number of creative people entering market.[211] However, there is only evidence of positive overall economic effects over short copyright terms of less than about 30 years. The empirical findings support objections to an extension or strengthening of existing copyright protection that have been expressed in recent years.[212] In particular, cumulative innovation, which is based on the use of existing works, could be impeded, without this effect being offset by stronger incentives for the creative people.

The legal rationale of copyright law in Germany aims to create "an appropriate balance of interests between originators, intermediaries and users" and not to serve "only the personal and economic interests of the originator".[213] In copyright law, legislators distinguish between exploitation rights (e.g. for copying, dissemination and public reproduction) and the originator's moral rights (e.g. for first publication, attribution and the integrity of the work).

Flexibility through exemptions from law

Exemptions from law are an important instrument for ensuring a fair balance of interests in copyright law. In copyright law, exemptions from law "limit" the exploitation rights of originators in certain situations. For example, the law grants the users of copyright-protected works the freedom for personal reproduction (private copying). In general, exemptions from

law can be coupled with compensation entitlements for the copyright holder.

At the international level there are two legal models for designing exemptions from law. In the US system, a general clause allows the "fair use" of protected works. By contrast, EU law provides for a specific list of exceptions. The US system is said to be more flexible than the European one. On the other hand, it leads to more legal uncertainty, since the grey areas in the definition of "fair use" have to be interpreted in court.[214]

Furthermore, European and German copyright law currently provide for special exemptions from law and other copyright-related regulations in the field of science and research which aim to serve the common interest in open scientific communication. However, exemptions from law – such as reproduction at terminals in libraries – are hardly applied in practice. The exemptions from law created in 2003 – for the public reproduction of small parts of a work and works (section 52a of the UrhG), reproduction at terminals in libraries (section 52b of the UrhG) and for the dispatch of copies (section 53a of the UrhG) have a particularly large number of unresolved interpretation issues and are therefore hardly used in practice.[215] The introduction of a general exemption to copyright for scientific purposes, by contrast, represents a flexible and practical alternative that goes beyond the privileges for scientists and users under existing law.[216] At the same time, however, any general exemption to copyright for scientific purposes should meet the requirements of the three-step test and be complemented by compulsory compensation.[217]

B 3–2 Effects of digitisation on the copyright industries

Changed cost structures for the creation and distribution of creative works

Digitisation is greatly influencing cost structures in creative industries. The costs of making copies of creative works fall, and – unlike in the analogue world – the digital copies maintain the quality of the original. In addition, distribution costs also decline because of the greater connectedness of online users. These effects became especially visible with the spread of the internet and the advent of file-sharing networks like Napster and platforms like MySpace or Soundcloud, where owners of digital music files are (or were) able to network and give each other access to the respective titles.[218]

However, digital technology also reduces the fixed and variable costs of producing creative works. The cost of access to a music studio, to facilities for making audio and video recordings, and to the creative processing of digital works are falling considerably, leading to an increase in the number of people entering creative work domains, be it for recreation or in commercial markets. Another important implication is that creative people are much less dependent on the selection mechanisms of traditional intermediaries. For example, artists who create music can today be successful without having a contract with one of the main publishing companies ("major labels"), because it has become possible for them to disseminate their own works on the internet without intermediaries. Cost reductions induced by digitisation and the lowering of market-entry barriers must in principle be seen as a positive development from an economic perspective, even if this means that the role and importance of classic intermediaries decline.

Participation of new innovation actors

Copyright law is implicitly based on historically grown assumptions on the different roles and activities of artists, copyright holders and users. In the world before digitisation, only artists acted creatively, whereas users only consumed – this was the assumption. Since licensing negotiations between artists and the numerous users would be inefficient due to transaction costs, copyright holders act as intermediaries. The latter sometimes take on further functions, e.g. choosing artists, advertising the works or organising the distribution. The users' contribution to value added consists only of consuming the work. From this point of view, copyright law primarily aims to control user behaviour or prevent unauthorised reproductions.

In a digital, connected world, however, users increasingly become creative people who make works for their own use, without necessarily substituting services that are commercially offered on the market. In some cases, subsequent market entries also turn creative users into suppliers of works who increase the variety of products available on the market.

In this context, an extension of property rights can be detrimental from an economic perspective, since cumulative innovations are restricted:[219] when inno-

vations build on each other, excessive protection for the first innovator can reduce the incentives for subsequent innovations (cumulative innovations) or make them more expensive. Creative users could be granted greater freedoms in this context, for example by introducing a corresponding exemption from law. Despite a relaxation of protection, such regulations can remain linked to compensation entitlements for the first innovator.

Ambivalent user behaviour

A detailed and differentiated description and evaluation of user behaviour is an important precondition if copyright law is to be adequately adapted to the developments of digitisation. It will require systematic studies financed by neutral (perhaps public) institutions and conducted by neutral research institutes, like the studies commissioned by the British Office of Communications (Ofcom). Every quarter, Ofcom collects and evaluates data on user behaviour in six categories: music, films, TV programmes, computer software, books and video games. For example, the fourth wave of Ofcom studies comes to the conclusion that one in six users (17 percent) consumed at least one digital product illegally between March and May 2013. Illegal behaviour in the consumption of digital works varies according to product type. It is most pronounced in music, but very low in fields like software, video games and books.[220]

Two observations made by the Ofcom studies are particularly interesting. Users who consume digital products via both legal and illegal channels spend much more on digital content per quarter (EUR 112.47 on average) than users who behave perfectly legally (EUR 48.50).[221] One possible interpretation is that the first group do a lot of "sampling": i.e. products are first tested illegally and then bought legally. Furthermore, the findings suggest that a large proportion of users do not know which offers are legal and which are illegal. 39 percent of the respondents[222] state that they are not at all – or not especially – sure about the legality of offers. In other words, overly complex copyright laws could create their own piracy.[223]

Ineffective enforcement procedures

Reports on rising piracy in the digital domain have led to calls for stronger copyright enforcement. Primarily multilevel, escalating procedures are used in this context.[224] In the meantime, however, the success of such measures (e.g. Hadopi in France, cf. Box 10) is now being critically questioned.[225] A recent empirical analysis of enforcement measures in several countries confirms this sceptical assessment.[226]

The formal warning regulation used in Germany is problematic because it involves an inherent risk of abuse and shifts the burden of proof onto the addresses when the legal situation is unclear.[227] The costs of the first warning to private individuals should therefore be borne by the copyright holders themselves. They should not be able to demand reimbursement of their dunning costs unless the internet-access provider has issued a first violation alert at the holder's request and the infringement has nevertheless continued.[228]

Growing importance of user-generated content

The OECD (2007) defines user-generated content on the basis of three central criteria: (i) the content must be distributed on the internet, (ii) the work must involve creative effort and not just be a reproduction of existing content, and (iii) the content must be produced without any direct involvement by established companies in the copyright industries.[229]

To date there is no uniform concept of methods or indicators for quantifying the value of user-generated content. Recent economic literature focuses in particular on the importance of user-generated content in the sense of user capital. User capital differs from a company's other intangible assets – such as human capital or brand value – in that it has no direct relation to tangible corporate assets. Rather, the emergence of user capital is subject to the control of the users, who provide services in this context and bear the costs. One vivid example is internet platforms like Facebook, which generates incentives for users to create and exchange content themselves. The online platforms make most of their profits from advertising revenue, which increases, the more users participate and generate content, and the longer the users remain on websites. Empirical studies on the US media industry indicate that more than 60 percent of the market value of such online businesses stems from user capital.[230]

Box 10

Enforcement measures in France

In 2009, the French Government passed the "Haute Autorité pour la diffusion des oeuvres et la protection des droits sur internet", or Hadopi Act, with the aim of improving the enforcement of rights on the internet; it was modified in 2010 and 2013. A state authority with the same name was created as part of the application of the law. It is to this authority that accredited copyright holders report suspected legal violations by users on the internet, particularly on file-sharing networks. The authority subsequently examines the legal situation and, where appropriate, asks the internet service providers for the infringer's user data.

The Hadopi authority uses a three-stage enforcement mechanism. In the first step, violation alerts are sent by email drawing the attention of the internet-access owner to the currently illegal use. At the same time the infringer is informed about possible further consequences, the economic damage being suffered by the copyright holders, and alternative, legal offers. The second step ensues if there is a further infringement within the next six months, in which case the authority again sends the same violation alert by email – plus an official letter with the same contents. If there is a further violation in course of the next year, this can lead to the internet access being blocked – but still paid for – for up to twelve months and a maximum fine of EUR 1,500 being imposed. Even if the owner of an internet connection is demonstrably not the actual infringer, this person is nevertheless liable in the course of the procedure and has to reckon with comparable sanctions and punishments.

After only a year, the authority had already received more than 18 million reports of infringements, i.e. around 25,000 to 50,000 per day, so that only a very small proportion of the reports led to actual court proceedings. In 2011 alone, the public costs of implementing the Hadopi legislation totalled more than EUR 10 million. The copyright holders are not directly involved in financing enforcement, but they do have to invest in the monitoring of the online markets in order to uncover copyright violations which are later reported to the Hadopi authority.

In 2013, the Lescure Commission's evaluation report on the effectiveness of the Hadopi measures came to the conclusion that the main aims had not been reached. Although there had been an overall decrease in the number of violations in the field of file-sharing networks, the infringers had not increased their use of legal offers; rather, most of them had switched to alternative platforms and technologies with illegal content. The Hadopi law was revoked by the French Government in mid-2013.[231]

B 3-3 Innovation and structural change in the copyright industries

More innovation despite difficult revenue situation

The German music and film industries have been greatly affected by structural change – at the latest since the turn of the millennium. The music industry in particular has experienced a massive decline in revenue since 2001. To be more specific, annual turnover fell by more than half in the period up to 2011 (cf. Figure 2). In the film industry, by contrast, sales have stabilised again following a slight decline in figures after 2005 (cf. Figure 3).

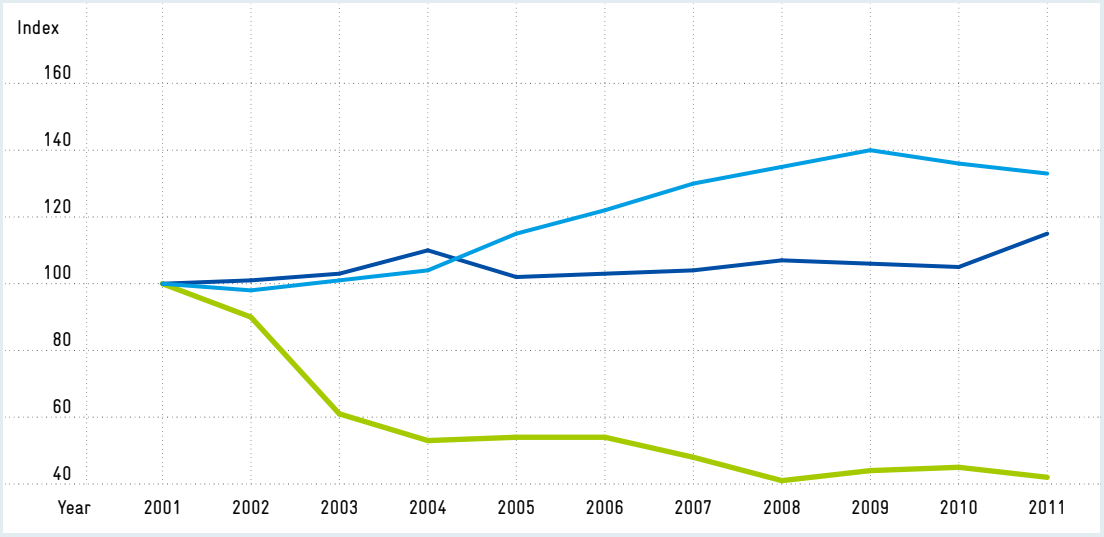
At the same time, companies of both industries have succeeded in maintaining their innovation dynamics despite this massive structural change: the annual number of new releases in the music industry rose in this period by more than 30 percent compared to the 2001 baseline year (cf. Figure 2); new releases in the film sector grew by more than 50 percent in the same period (cf. Figure 3). This has led to a marked increase in the overall diversity of supply in both industries. At the same time, trends in average user ratings[232] of music and movie titles currently provide no evidence of a reduction in the quality of the fast-growing supply of works.[233]

Additional innovations by creative users

A much publicised development in the culture and creative industries is the increased participation of

German music industry: new releases, user ratings, turnover, 2001 to 2011

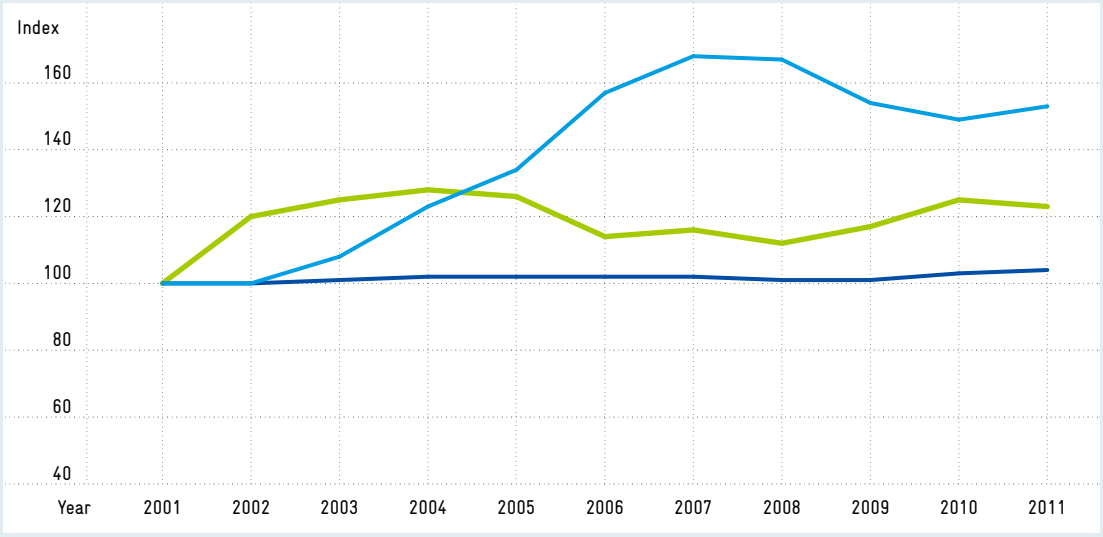
Fig 02
Data
Download



Index: 2001 = 100
Source: Own depiction based on Handke et al. (2015).

German film industry: new releases, user ratings, turnover, 2001 to 2011

Fig 03
Data
Download



Index: 2001 = 100
Source: Own depiction based on Handke et al. (2015).

Box 11

Empirical evidence on the impact of copyright law on the innovation activities and turnover of specific copyright industries

A recent econometric analysis examined the linkages between innovation activity and copyright law in Germany and several reference countries.[234] The study's findings suggest that there is no significant causal relationship. The strength of copyright law and the extent of unauthorised copying of digital content have no influence on the number of new releases in the music and film industry. Furthermore, there is no evidence in either of the industries that copyright law has changed the quality of the supply (as measured by user ratings of music and films). However, caution is required when interpreting the study results. The possibility cannot be excluded that positive and negative digitisation effects are cancelling each other out or, more precisely, that incentives for innovation are being reduced by lost revenue, and simultaneously increased by productivity growth. No conclusive assessment can be made on the basis of the study as to the causal effect of either copyright law or digitisation on the development of turnover in the individual sectors. However, there are initial indications that digitisation has had a positive impact on the film industry's turnover. This applies particularly to video sales, which are actually strongly affected by illegal copying activity, yet seem to benefit overall.

private end users in production processes. The online dissemination of copyright-protected works on file-sharing platforms is an impressive example of this: users make works available to each other free of charge, although the technical platforms they use are often commercial operating companies.

In recent years, it has become clear that more private end-users are creating content themselves that is widely disseminated and can even develop a considerable market value.[235] A large proportion of the content accessible on the YouTube video portal, for example, comes from private end-users; above a certain number of user visits, YouTube now pays part of its advertising revenue to the people who uploaded the content. However, user-generated activities are not captured by official statistics on turnover and employment, because they often do not take place within the formal categories or on the traditional markets of the culture and creative industries.

On the basis of a random sample of 500 videos on YouTube, a recent study conducted on behalf of the Commission of Experts came to the conclusion that 33 percent of the videos posted on YouTube can be classified as user-generated content.[236] An additional 21 percent of the videos in the sample at least indicate a certain creative contribution by the users (cf. Table 1). These are hybrid forms of creative works which also include professional content. Less than half of the videos have a purely professional background (46 percent).

Counting the number of hits, professional content is selected more than five times as frequently as purely user-generated content. However, if the average user ratings (likes) are used as the measure of content quality, there are hardly any differences between user-generated works and professional ones. On the basis of the sample, it is not possible to study developments over time or assess whether or not commercial offers are being replaced by user-generated content.

Up to now, existing copyright law has not been geared to dealing with this important change – especially in Germany, where the originator's consent is required for the publication and exploitation of a remixed or redesigned work. However, this consent is difficult to obtain, especially for private individuals, because the right to remix is not exercised by collecting societies. This is why many forms of user-generated creativity – e.g. FanFiction and Mashups – are currently in a legal limbo.[237]

In principle, however, the legal framework in Germany, as defined by sections 23 and 24 of the German Copyright Act (UrhG), is broad enough for reforms to create leeway for creative remixes that can still be distinguished from the original and comply with the moral rights of the first originator pursuant to section 14 of the UrhG. A distinction could also be made between the non-commercial public reproduction of remixed works in the internet and activities targeting a commercial purpose.[239]

Tab 01
Data
Download

Types[238] of video content on the internet

Note: video searches were carried out on YouTube based on a random sample of words in different languages. In each case, a video was subsequently chosen randomly from the first ten search results listed. A random sample of 500 videos was generated in this way. The upload year, the number of views and the user rating (likes or dislikes) were recorded for each of these videos.

	Number of videos	Number of views	Average no. of views per video	No. of likes	Average no. of likes per video (per 1,000 views)
User-generated content	166 (33%)	6,748,299 (12%)	40,652	27,423 (38%)	165 (4 von 1,000)
Hybrid forms	103 (21%)	12,161,192 (21%)	118,070	730 (1%)	7 (6 von 10,000)
Professionally produced content	231 (46%)	38,502,567 (67%)	166,678	44,975 (61%)	194 (1 von 1,000)
Total (1 per 1,000)	**500 (100%)**	**57,412,096 (100%)**	**325,400**	**73,128 (100%)**	**146 (1 von 1,000)**

Source: Handke et al. (2015).

Foreign legal systems already contain regulations that allow parody or other adaptations by users without requiring the copyright holder's consent. For example, the Canadian Copyright Act allows creative remixes for non-commercial purposes, provided that they do not substitute the original work.[240] The introduction of a similar exemption from law is currently under discussion in Ireland.

B 3–4 Reform measures in Germany and other countries

In the past, although copyright law has been harmonised across national boundaries in many areas, considerable differences remain that hinder the trade in digital goods to a varying degree. For example, to date it has not been finally clarified in the legal context whether the digital distribution of unused licenses of ("used") software by users or third parties – without the consent of the actual software company – is allowed.[241] Most national legislators basically face the challenge of adapting copyright law to the developments of digitisation and ensuring greater public acceptance of the law. In Germany, a first set of copyright reforms (Zweiter Korb), which included new regulations on private copying, came into force in 2008. Most of the legal changes introduced by a second set of reforms (Dritter Korb) have already been implemented.

An overview of reform efforts in selected countries shows that up to now there is no international blueprint that might be regarded as a guideline.[242] Furthermore, it becomes clear that Germany is going it alone with some of its regulations. Especially problematic in this context is the reform of ancillary copyright law for publishing houses, which was passed by the German parliament after a fierce debate, even though scholars were unanimous in their sharp criticism of the proposal.[243]

Recommendations B 3–5

Copyright law lays down important framework conditions for creativity and innovation in a digital economy. The Commission of Experts therefore welcomes the fact that the Federal Government attaches great importance to the design of copyright law. The Commission believes there should be a shift in thinking on copyright law to make it more innovation-friendly. The design of this legal norm is part of Germany's economic and innovation policy – it must be more economically grounded than it has been in the past.

Digitisation and connectedness in copyright industries currently take place at high speed and also have an impact on innovation in these and related industries. In order to fully exploit Germany's innovation potential, the Commission of Experts recommends

the following measures which, where appropriate, should be implemented in a European context:

- The creative redesign of works should be permitted in order to set incentives for user innovations. Redesigns should be permissible based on an exemption from law, provided that – as demanded by the Wittem Group – an inherent difference from the original work is maintained, and provided that the redesign is non-commercial.
- Access to scientific findings should be simplified. To achieve this, a general exemption to copyright for scientific and education purposes should be introduced, thereby providing practicable regulations for the broadest possible access to the stock of knowledge. This exemption from law should be complemented by compulsory compensation. The current complex rules of German copyright for the domain of science have to be simplified.
- The current copyright regulations are very complex and therefore oppose a greater public acceptance of the law. The Commission of Experts therefore urges the Federal Government to simplify the copyright provisions as part of their ongoing reform efforts. These steps should also be flanked by policy measures that improve awareness among users and increase the transparency of copyright law.
- Sending violation alerts is a useful alternative to the common practice of issuing formal warnings. Violation alerts can help inform about rights violations and create transparency. A legal claim for reimbursement of the costs of a formal warning should be tied to the condition that a prior violation alert has been sent via the internet service provider to the infringer.
- Empirical research on the impact of copyright law on business models and innovation in the digital economy is still at an early stage in Germany. The necessary data infrastructure should be rapidly built up, and the responsible ministries should attach greater importance to further analyses on the effects of copyright.