

# COPY CULTURE

in the US & Germany



THE AMERICAN ASSEMBLY  
COLUMBIA UNIVERSITY

Joe Karaganis  
Lennart Renkema

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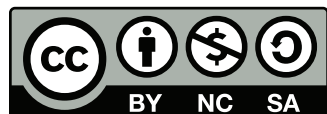
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# Introduction

**NEARLY HALF OF ADULTS IN THE US AND IN GERMANY** participate in a broad, informal “copy culture,” characterized by the copying, sharing, and downloading of music, movies, TV shows, and other digital media. Among young adults, the number is 70%.

Most of this activity is casual and occasional. Much of it happens *offline*, in exchanges between friends. In most European countries, including Germany, much of it is legal. Copy culture is pervasive because it is the first practical iteration of a powerful idea: of culture as a universal library, abundant and shared. It is pervasive because copying media has become very easy—an extension of the basic operations of computers and networks. And it is pervasive because, for both of these reasons, it is very hard to control.

We are living in a period of intense debate over the boundaries and policing of copy culture. The past year has seen controversy after controversy on these issues, from the troubled implementation of “three-strikes” laws for infringement in France, to the rise of the Pirate Party in Germany, to the successful large-scale protests against the Stop Online Piracy Act (SOPA) in the US and the Anti-Counterfeiting Trade Agreement (ACTA) in Europe.

Repeatedly, copyright enforcement proposals have been pulled into wider debates about culture, innovation, and human rights. This convergence is inevitable. As computers and networks become part of the fabric of human life, they become enablers of both rights and new forms of social control. They define and limit freedom of expression and information. They embed tradeoffs between services, security, and privacy. The more basic the functionality, the more important the rules that govern them. Because of this convergence, it takes little imagination to see larger stakes in proposals to restrict the copying of files or block access to websites. And so after years of relative obscurity, these debates have become—rightly—politicized.

*Copy Culture in the US and Germany* is an effort to illuminate these issues through a survey of attitudes and practices regarding copying and downloading, enforcement, and business model innovation. The study is based on a random phone survey of 1000 Germans and 2,303 Americans, conducted in August and September 2011.

*The survey focuses on five broad topics:*

- (1) Practices:** What people say they have and do.
- (2) Attitudes:** What people say they should be able to do.
- (3) Penalties:** What people think are appropriate penalties for infringement.
- (4) Blocking:** Whether intermediaries like ISPs and search engines should block infringing content.
- (5) Buying:** What people will pay for, as businesses begin to implement their own approximations of a native digital culture: cheap, on-demand, universal, and shared.



Why compare the US and Germany? Because the two countries play oversized roles in setting international IP policies, with the US driving the adoption of stronger IP rules and Germany at the center of an increasingly complex European debate about the tradeoffs of strong IP protection. Because the two countries have similar socioeconomic profiles but very different media and cultural markets. Because they approach the issue of enforcement differently, with the US debate dominated by opposing theories of innovation, while the German debate stresses a balance between law enforcement and privacy. Lastly, both countries are surprisingly understudied terrain—especially the US, where systematic surveying on these issues has been rare.

Because technologies, cultural practices, and the policy landscape change very quickly, real-time accounts of these developments have a short shelf life. The pace of change alone presents serious challenges to research. Because surveys are expensive, there are few studies that reliably track these issues over time (Germany has one such study conducted by the market research firm, GfK. The US does not). Nor is there much comparison between countries. Our study illustrates the value—and limitations—of the comparative approach. Data that may be unremarkable in the US or German context comes to life when juxtaposed. We have also pulled in findings from other surveys when we believe they are helpful and reliable. Here we must add another caveat: the majority of these findings come from commercially-funded studies that do not release full results or data. This is a chronic weakness of research in this area. As we shall see, survey comparison is a rough art at best. But it is also, we think, a necessary step in understanding our global copy culture and the crisis of copyright.

# Overall Findings

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## COPY CULTURE

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**Nearly half the population in the US and Germany (46% US; 45% DE)** has copied, shared, or “downloaded for free” music, movies, and TV shows. We call this “copy culture.”

**Much of this activity is casual and small scale.** In both countries only 14% of adults have acquired most or all of a digital music or video collection this way. Only 2%–3% got most or all of a *large* collection this way (>1000 songs or >100 movies / TV shows).

**Copy culture tracks strongly with youth.** Among adults under 30 in both countries, around 70% copy, share, or download media for free (70% US; 71% DE). In the US 27% in this age group acquired most or all of their digital music/video collections this way, and 10% acquired most or all of a *large* collection this way. In Germany the corresponding numbers are 33% and 7%.

**In both countries offline “private copying”—copying for personal use or sharing with family and friends—is comparable in scale to online file sharing.** In the US, private copying and online file sharing contribute roughly equal shares to the average digital music collection: 22%–23% among those under 30. In Germany, online file sharing contributes more to average collection size (34%, versus 18% for private copying among those under 30) but less when controlling for collection size (17% for downloading; 25% for private copying). Put differently, most Germans copy more than they download.

**Copying and online file sharing are mostly complementary to legal acquisition, not strong substitutes for it.** There is no significant difference in buying habits between those who copy or file share and those who do not.

**P2P file sharers, in particular, are heavy legal media consumers.** They buy as many legal DVDs, CDs, and subscription media services as their non-file-sharing, Internet-using counterparts. In the US, they buy roughly 30% more digital music. They also display marginally higher willingness to pay.

**In Germany much of this copying is legal under the “private copy” provisions of copyright law,** which carve out a space for noncommercial personal uses, including passing copies to family and friends. This exemption does not extend to downloading or to copies made from “evidently unlawful public sources.”

**In the US little to none of this private copying is presumed legal,** and much of it is now subject—in law if rarely in practice—to high criminal penalties.

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## MARKETS

**German digital media markets are significantly smaller than their US counterparts,** with lower device ownership in most categories and slower rollout of legal on-demand and streaming services.

Digital music consumption is a good example. Although CD collections in the two countries are of comparable size, average and especially median digital music file collections are significantly larger in the US. Among those under 30, median collection size is 1000 in the US and 300 in Germany.

Adoption of streaming services is also much more prevalent in the US. Thirteen percent of Americans listen to most or all of their music via streaming services; 2% of Germans do. Seven percent of Americans have paid subscriptions to streaming music services, compared to 1% of Germans. Spotify—king of the streaming services in neighboring Sweden—launched in Germany only in March 2012.

These differences are even more pronounced with respect to streaming video services. Fifteen percent of American households subscribe to paid Internet video services—predominantly Netflix. In Germany the number is under 2%.

These differences matter because cheap, convenient streaming services are often described as a means of (re)commercializing the large informal digital music and video sector. Our data suggest that streaming services do displace some informal copying and downloading. In the US 48% of those who do both say that they copy and download less music because of the growth of those services. For TV/movies the “Netflix effect” is 40%. In Germany our limited data for music streaming puts this number at 52%.

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## WHAT’S REASONABLE?

**In both the US and Germany, attitudes toward copying and file sharing track a loose distinction between public and private copying.**

**Sharing music and movie files with family is viewed by large majorities as “reasonable” behavior,** with average support running 70%–80% in both countries.

**Facilitating online file sharing, in contrast, is viewed by large majorities as unreasonable.** Only 15% of US and 11% of German music file owners view *uploading* to sharing services as reasonable.

**“Sharing with friends” is the pivotal issue in both countries.** Among those under 30, large majorities view the practice as reasonable (Music: 76% US; 73% DE. Movies/TV: 75% US; 79% DE). Among older groups, support drops sharply. Among 50- to 64-year-olds in the US—the policy-making generation—only 48% of those with music files view sharing with friends as reasonable. Among those with movie/TV files, only 34% do. In Germany, among 50- to 69-year-olds, 37% and 45%, respectively, view these practices as reasonable.

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## PENALTIES

**In the US only a narrow majority (52%) offers clear support for penalties for unauthorized downloading.** An additional 7% would consider the circumstances.

**In Germany support for penalties is 59%.** An additional 9% would consider the circumstances.

**In the US this support is significantly lower among the young.** Among American 18- to 29- year-olds, only 37% support penalties for unauthorized downloading. 53% oppose. In Germany 56% of 18-29 year olds support penalties.

**In both countries this support is limited to warnings and fines.** Support for stronger measures drops sharply. Limits on the speed or functionality of Internet service attract 28% support in the US and 29% in Germany. Disconnection from the Internet attracts only 16% support in the US and 22% in Germany.

Among the 16% of Americans who support disconnection, most (58%) indicated that they would drop their support if it meant disconnecting households rather than individuals (which it currently does).

Who should adjudicate charges of infringement? Sixty-seven percent of Germans and 54% of Americans said the courts—not private companies.

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## BLOCKING

Should ISPs, search engines, and other web services be responsible for blocking infringement by users on their networks? This was the issue at the heart of the SOPA debate and similar measures proposed in other countries.

**Our results show an *ordering of values* online, in which copyright enforcement is viewed favorably by majorities in both countries until it conflicts with other values such as freedom of expression and privacy.** We asked a range of questions that explore these conflicts.

In the US 61% of Internet users support a soft requirement that web services like Facebook and Dropbox “try to screen user activity and remove pirated files.” Support falls slightly for stronger requirements that ISPs and search engines block access to pirated music and videos (58% for ISPs; 53% for search engines).

Support drops to 40% if the government is involved and to 33% if the word “censorship” is used.

*In our view, the SOPA debate comes down to two key questions:*

**Would you support blocking if some legal content were also blocked?** This is a conflict between copyright enforcement and freedom of expression. Fifty-seven percent said no.

**Should your Internet use be monitored in order to prevent infringement?** This is a conflict between copyright enforcement and privacy. Sixty-nine percent said no.



Support for blocking is weaker among the young—and sharply so for blocking by search engines and ISPs: 43% and 39% of Americans under 30 support such measures, respectively.

**German public opinion is significantly more favorable to blocking in almost all of its variations.** Blocking requirements for ISPs and search engines received 73% and 69% support, respectively. Government blocking received 58% support. Even “government censorship” recorded 52% support, likely reflecting greater German comfort with bans on perceived harmful speech.



#### **Would you support blocking if some legal content were also blocked?**

A bare majority of Germans, 51%, said yes.

#### **Should your Internet use be monitored in order to prevent infringement?**

Here, enforcement runs up against the brick wall of German privacy concerns. Seventy-one percent said no.

**Privacy is the paramount value in German enforcement debates, overriding otherwise strong support for blocking and filtering measures.**

The premium on privacy is clearly visible in German Internet behavior: 39% of German Internet users make special efforts to encrypt their Internet traffic. In the US only 18% do. Eleven percent of Germans use tools to hide their IP addresses online (typically, VPNs). In the US only 4% do.

The use of anonymizing services is higher among the young and especially within the file-sharing community. Thirty-six percent of German P2P users use tools to hide their IP addresses. In the US 16% do. Given these numbers, such services are almost certain to become a target of the next round of enforcement battles.

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## **LEGALIZING FILE SHARING**

Proposals to legalize file sharing have been put forward by a number of stakeholders in the copyright debates, including by several European political parties.

Sixty-one percent of Germans would pay a small broadband fee to compensate creators in return for legalized file sharing.

Forty-eight percent of Americans would do so—a surprisingly high number given the relative invisibility of such proposals in US debates.

The median willingness to pay was \$18.79 per month in the US and €16.43 in Germany.

# Methodology

**US RESULTS ARE BASED ON INTERVIEWS VIA LANDLINE** and cellular telephones conducted in English with 2,303 adults, age 18 or older, living in the continental United States, during August 2011. The German survey is based on phone interviews with 1000 people age 18 or older, conducted between August 24 and September 6, 2011. The German component included landlines only—standard practice due to the lower number of cellphone-only households. For results based on the entire US sample, the margin of error is plus or minus 2%. In the German case the margin of error is 4%. Our results are also weighted to better represent the demographic profiles of the two countries.

US and German surveys used the same question set—though minor cuts were made in the German version to meet the 20-minute time limit accorded most phone surveys.

Standard age brackets used in national surveys differ slightly in the US and Germany: US surveys generally use 50–64 and 65+ brackets. German surveys use 50–69 and 70+. We followed these norms. For the great majority of questions, this introduced no statistically significant differences.

For the handful of questions where we report household income categories, we break the population into rough terciles—low income, medium income, and high income. These brackets describe similar income ranges in the two countries, but are usually reported differently. In the US the top income tercile starts at around \$75K per year *before taxes*; in Germany, at around €30K per year after taxes. At the time of the survey, €1 equaled about \$1.40.

Some of the important questions in this study targeted very small groups. Only 4% of the adult German population (N=39), for example, reported using P2P services. Any further breakdown of the behavior of this group is statistically unreliable. We have excluded the majority of these low-sample-size findings, except where they clearly validate wider findings or raise interesting questions for further study. We have indicated when the sample size drops below a reasonable confidence level.

More generally, the survey results show volatility on some topics that, we believe, significantly exceeds the statistical margin of error. Variations on questions about different kinds of file sharing, for example, produced different response rates and—occasionally—statistically significant divergences in interpretation between age groups. Some questions required considerable knowledge of or experience with the practices described, such as “seeding” BitTorrent files or “hiding IP addresses.” We have done our best to clarify these results and signal where we lack confidence in them. The larger point is that although the survey methodology is fairly rigorous, the survey language and the social reality it maps are not.

The surveys were sponsored by the American Assembly, with support from a research award from Google. Both US and German surveys were conducted by Princeton Survey Research Associates International. The design of the surveys and the interpretation of the data are solely the responsibility of the researchers.

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## UNDER-REPORTING OF PIRACY

All surveys contend with the tendency of respondents to answer strategically—to tell the interviewer what they think he or she should hear. This is a particular concern when dealing with activity widely perceived to be unethical or illegal, such as the uploading of music to P2P networks.

There is no consensus about the scale of underreporting of copyright infringement, and our survey provides no means of estimating it. However, an Ofcom / Kantar Media study (2010) of file sharing in the United Kingdom did shed

some light on this issue by exploring variations in responses to the same questions asked using different methods, including face-to-face interviews, phone interviews, and e-mail questionnaires. With regard to questions about participation in “illegal downloading,” results ranged from 12% of the population based on the face-to-face method, to 13% based on phone interviews, to 19% based on e-mail solicitation. Weighing all methods, the authors estimate that 15% of the UK population has engaged in “illegal downloading”—implying that phone surveys undershoot actual behavior by a modest amount (in this case, by 2%). This is worth keeping in mind throughout the analysis, especially where sample sizes are small. Germany, for example, consistently shows one of the lowest rates of P2P use in Europe, and our findings are at the low end of reported numbers: 4% of Internet users. Earlier in 2011 the German National Statistics Opinion Survey, using slightly different language via a self-administered mail survey, put the proportion of P2P users at 10% of Internet users. Survey firm GfK, asking a question via phone survey about “illegal downloading” in 2011 found 6% participation. It is safe to assume that such uncertainties run through many of the topics addressed here.

# Context

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## COPYING AND INFRINGEMENT: THE LEGAL FRAMEWORK

Much of this study explores the loose distinction, present in copyright law and social practice, between public and private copying—between making small numbers of copies for personal use and making large numbers of copies for wider distribution.

Until recently, this distinction reflected material constraints: the types of copying and distribution available to most individuals kept the practice on a small scale, bounded by close personal networks. Copying on a large scale was expensive and, as a result, almost always a commercial activity. Copyright law was built around this convergence of scale and commercial purpose. It focused on publishing—on the business of making works public. Private copying was largely ignored and, over time, partly incorporated into narrow “limitations and exceptions” to copyright, including educational use, transformative use, citation, time shifting, and other specific purposes. National copyright laws gave widely varying scope to these conditional uses.

As our survey shows, public/private and commercial/noncommercial distinctions remain important to public attitudes toward copying. Copying is widely accepted within personal networks, reflecting a view of culture as not only shared but also constructed through sharing. Copying or downloading for personal use is very widely accepted. Outside family and friends, however, support for copying and dissemination is significantly lower. Commercial norms and property rights, broadly speaking, prevail over sharing.

As copying and distribution become very cheap, this distinction is threatened. Digital natives—18- to 29- year-olds in our survey—are much less likely to distinguish copying along these lines. Strong social networks still provide the most important framework and rationale for copying, but weak online social networks have expanded dramatically. These are connected in part—and sometimes in whole—through shared media.

Despite these challenges, the public/private distinction continues to shape the legal environment around copying.

In Germany (and throughout continental Europe), this distinction underwrites the tradition of “private copy” exemptions to copyright. Such provisions legalize personal copying in return for the indirect compensation of rights holders. Germany led the way in developing private copy rules in the 1960s after the music-collecting society GEMA tried to hold tape-recorder manufacturers liable for consumer recording of radio. The first private copy exemption became law in 1965, legalizing copying for personal, noncommercial use (§53 UrhG). Because the debate framed private copying as a loss to rights holders, lawmakers agreed to balance the loss through a levy on recording devices, payable to the collecting societies.

Over time the German model gradually expanded to include other devices and blank media. It also spread to other countries. By 2003 all EU member states (with the exception of the United Kingdom, Ireland, and Luxembourg) had established provisions for the private use of copyright-protected works, linked to indirect remuneration of rights holders. Outside Europe at least thirty other countries have adopted similar provisions (Hugenholtz, Guibault, and Van Geffen 2003). In an era of cassette tapes, Xerox machines, and later CDs, private copy exemptions carved out a space for personal use of the new technologies.

In the US, debates about the appropriate scope of “home use” of recording devices date back to the early 1970s, but failed to produce much legislative guidance (OTA 1989). Explicit private copy provisions were negotiated only in the late 1980s, as record companies anticipated the shift from analog to digital recorded music. The Audio Home Recording Act (AHRA 1992) created a framework of technical protections for digital devices while—in return—allow-

ing for common types of personal use, such as the mix tape. Although the record companies pushed for a broad law, electronics companies feared constraining the consumer electronics boom. The resulting law was limited to digital audiotape and a handful of other devices. It failed to cover the subsequent wave of digital media. Nor did it include audiovisual media.

Since AHRA, US law has moved in the opposite direction by challenging or erasing many of the de facto tolerances for personal copying, from backups to private sharing with friends. In large part, this has been accomplished by subsuming digital copying into the “public” enforcement regime—by treating it as commercial activity subject to criminal sanctions or harsh civil equivalents. Although clear jurisprudence is lacking on many of these issues, a presumption of illegality hangs over most forms of sharing media in the US.

Equally important is the assumption that private copying reflects a failure of enforcement rather than a balancing of rightsholder and user interests. This logic has underwritten efforts to push enforcement into the consumer arena through measures such as the expansion of criminal penalties, the growth of online surveillance, and the use of automated sanctions. We examine public attitudes toward these developments in considerable detail below.

The dilemma for US law is that—in the absence of private copy exceptions and strong privacy traditions—there is little legal counterweight to the expansion of surveillance and the criminalization of infringement. And in a “fair use” tradition geared toward creators and narrow-purpose exceptions, there is little prospect of an extension to cover the “merely” consumptive uses that characterize much of copy culture.

For continental European copyright law, the main dilemma is the blurring of the public/private boundary in actual copying practices (Kretschmer 2011). Courts are still wrestling with this issue and have reached divergent conclusions. Unauthorized downloading, for example, is currently understood to be legal under private copy provisions in the Netherlands and Switzerland. In Germany, in contrast, a 2007 amendment to its provision clarified that copies of works made from “evidently unlawful public sources” (“offensichtlich rechtswidrig öffentlich zugänglich”) are not covered, leaving courts struggling with how to establish ‘obviousness,’ the number of permissible copies, the precise definition of ‘friends,’ and the boundary between commercial and non-commercial uses. Content industry groups like the IFPI, which represents record labels, are campaigning to outlaw the passing of copies to family and friends altogether. The German minister of justice recently reaffirmed that private copying will remain permissible.

Our surveys shed light on two of the proposed solutions to this dilemma: measures to extend enforcement into traditionally private spheres of activity and proposals to expand the private-copy principle to encompass online copying and sharing.



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## THE ENFORCEMENT BLOWUP

Our surveys were conducted in August and September of 2011, during a period of extensive but—from the public’s perspective—largely invisible policy activism on these issues in Europe and the US. That low profile came to an abrupt end in the months that followed.

- In October and November 2011, public and Internet sector opposition to the Stop Online Piracy Act (SOPA) exploded in the US, leading to an Internet blackout day in January and the tabling of the legislation. For the first time, significant numbers of Republican lawmakers withdrew their support for stronger IP enforcement, fueling a debate that crossed partisan lines.
- In September the German Pirate Party won 8.9% of votes and 15 seats in parliamentary elections in Berlin, gaining state-level representation for the first time. Similar successes followed in three other German states in the first half of 2012. A series of controversies over domestic IP policies helped the movement maintain a high level of mobilization, including debates over the economic impact of piracy; competing studies regarding the legality of three-strikes measures (here limited to warnings—not disconnection or other administrative sanctions, which are widely viewed as unconstitutional) (Schwartzmann 2012; Horeen 2012); controversy over German refusal to implement EU data retention requirements for ISPs and phone providers; and, in May, uproar over the use of “School Trojan” software intended to monitor school computer networks for infringement (the software was quickly withdrawn).
- In January 2012 the takedown of the online storage site Megaupload and the arrest of its owners in New Zealand at the request of the US generated a wave of public attention to piracy and enforcement and cast a cloud of uncertainty over the legal status of a wide array of web services.
- In February 2012 large-scale protests against the Anti-Counterfeiting Trade Agreement broke out across Europe, putting the agreement into sudden and unexpected jeopardy as leaders in several European countries—including Germany—vowed to reevaluate or reject it. In early July the European Parliament rejected the agreement, dealing it a probably fatal blow.
- In March 2012 the copyright debate in Germany erupted again when a number of prominent authors accused the Greens, Pirates, and the Internet community of trying to “expropriate” artistic livelihoods. Statements for stronger copyright protection received several thousand signatures and, in turn, produced the “We are authors too” countercampaign, which defended the value of an open and unmonitored Internet for creators.

What does this flurry of events signify? A year ago, it seemed likely that many of the issues described above would be resolved through the quiet establishment of a much stronger international IP enforcement regime—with little opportunity for public engagement. Today there is much more public mobilization around these issues, and less certainty about the outcomes. New stakeholders have entered the debate and begun to change the discourse. The past two years have seen strong interventions by human rights groups, courts, and international organizations—in many cases responding to the sharpening tension between IP enforcement and rights to free expression and privacy.<sup>1</sup> Stronger

enforcement measures—including the bellwether “three-strikes” Internet disconnection law in France—have faced resistance and proved difficult to implement.<sup>2</sup>

The changing public profile of these issues places an asterisk on some of our results—especially those regarding attitudes toward enforcement. Given the character of the SOPA and ACTA mobilizations, we think that opposition to strong enforcement measures has probably grown since our surveys were conducted.

Only time and further research will tell. At a minimum, the current data provide a useful baseline for evaluating changes in these structures of opinion over time. More ambitiously, they offer an account of public opinion and realities on the ground that have been largely invisible in the policy debates. This matters not just for the purposes of looking back at SOPA and ACTA but also for looking forward toward the array of policy initiatives and debates on the table in the next year, including:

- The effort to reintroduce strong international enforcement norms through new trade agreements like the Trans-Pacific Partnership (TPP);
- The ongoing German debate over data retention and “graduated warnings” against online infringers;
- The presumed implementation of graduated warnings (a.k.a. six strikes) in the US, based on agreements signed in 2011;
- The revision of the European Union’s wider IP enforcement framework (IPRED2); and
- Continued battles over the scope of private action on enforcement, from robo-litigation threats against consumers to escalating demands on ISPs to hand over customer data.

And a host of other struggles that will shape the future of the Internet and digital culture.

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1. These responses range from criticism of disconnection and blocking measures by UN officials (La Rue 2011), to the prioritization of privacy over enforcement by the European Court of Justice (European Court of Justice 2011), to statements by the Organization for Security and Cooperation in Europe (Akdeniz 2011) condemning both public and private “censorship” of speech on the Internet, to a wide range of other regional statements and efforts. Like many development organizations in the mid-2000s, the human rights sector has begun its digital turn.

2. In September, the French agency responsible for Internet enforcement—HADOPI—won its first case against a man who everyone agrees was the account owner but not the actual infringer of the songs in question. The future of the system is unclear. HADOPI divided the major candidates in the May 2012 presidential election, and following Francois Hollande’s victory, a “redesign” and possible defunding of the system was announced. In the US a similar six-strikes system based on an agreement between ISPs and rights-holder groups was signed in 2011, but actual penalties remain vague and—as of December 2012—the system remains unimplemented.

# Practices

## DEVICES AND SERVICES

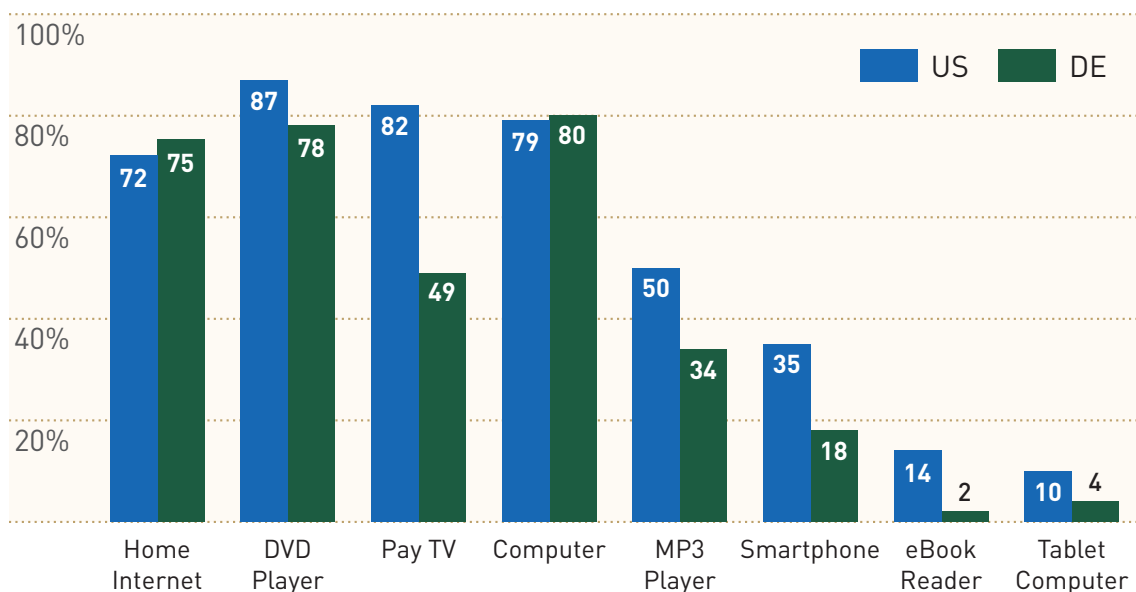
There is a powerful material component to attitudes and practices around digital culture. What people do and think is shaped, in part, by what they have—by their access to the larger ecology of devices and services that shape the media environment. Germany and the US have much in common in this regard because they are both high-income countries. Both have high levels of home Internet use (77% and 79% of adults, respectively) and saturated markets for computers and recorded-media players, such as DVD players.

Yet there are also significant differences that shape practices of copying and sharing. Pay TV services, for example, are significantly less common in Germany than in the US (49% vs. 82%), reflecting a tradition of public television funded by broadcast fees (like the United Kingdom's BBC). German commercial TV services started only in 1984. This has implications that we will explore in the next sections, including lower availability of on-demand programming and other video services and an accordingly larger role for informal and Internet-based sharing of TV and movies.

Newer device markets have also developed differently in the two countries. The US has higher levels of MP3 player<sup>3</sup> and smartphone ownership and has seen a much more rapid adoption of e-book readers and tablets. Controlling for population size, the digital music market in Germany is small compared to the US, and the e-book market is tiny (about 1% of the total book market [Naumann 2012] compared to over 6% in the US [Wischenbart 2011]).

## Device Ownership and Services (US and Germany)

[AMONG ALL ADULTS]



**3.** Our number is lower than GfK's (2011), which found that 45% of Germans have MP3 players

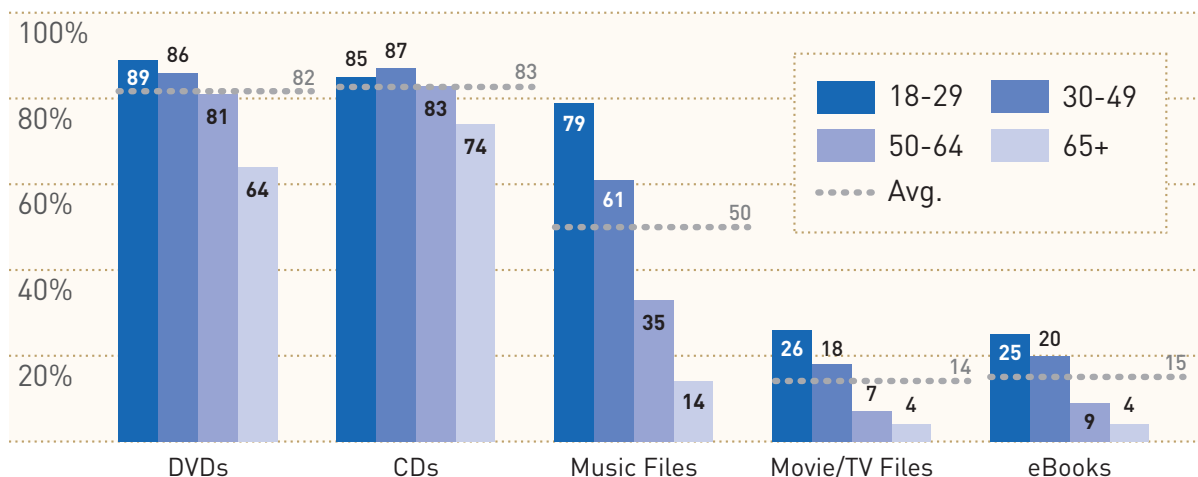
## COLLECTIONS

**The ownership of different types of recorded media (CDs, DVDs, music files, etc.) broadly mirrors trends in device ownership.** In Germany rates of CD and DVD ownership are high for all age groups under 70. For newer digital formats the 18–29 cohort outpaces older age groups by wide margins. As we shall see repeatedly, digital culture in Germany is youth culture, heavily concentrated among those under 30. In the US the age gradient for most digital media practices is more gradual, encompassing many more 30- to 49-year-olds.

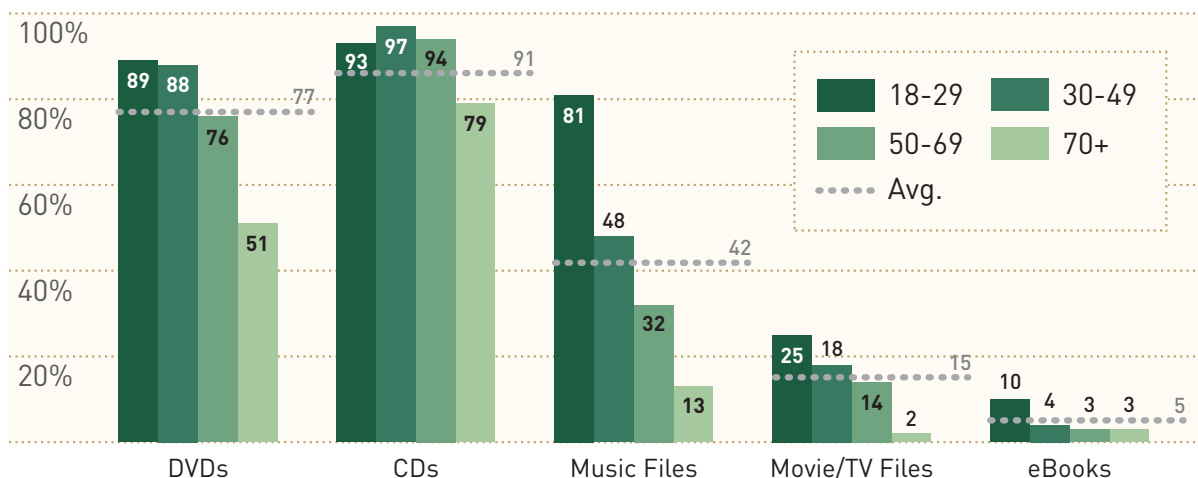
Older groups show more uptake of digital music in the US, and digital movie/TV files in Germany.

The US leads Germany by a wide margin in e-book ownership, mirroring the large gap in device ownership. Here, too, the explanation is overdetermined by market and cultural differences, including German tax policies that favor print over digital publication and “fixed price” policies that level the terrain between small and large chains (Wiener 2012; Naumann 2012).

### Media Ownership by Age (US) [AMONG ALL ADULTS]



### Media Ownership by Age (Germany) [AMONG ALL ADULTS]

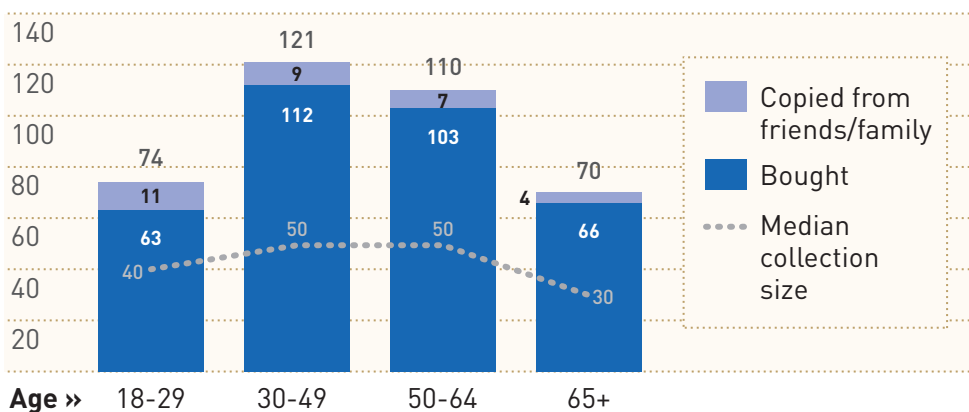


## COMPACT DISCS

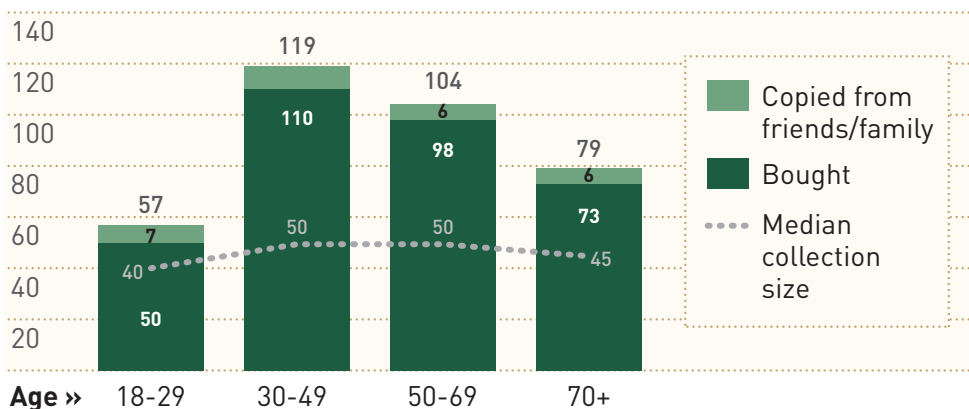
The CD is dying among the young but is still the primary medium for music collecting among older age groups, especially in Germany, where in 2011 physical formats still represented 82% of music sales revenue (Spahr 2011)—compared to 48% in the US (RIAA 2012). Germans and Americans have very similar patterns of CD ownership. Average collection size and median collection size are roughly the same across the four age groups.

The sources of these collections are also similar. The vast majority of CDs are purchased. Only a small portion is copied, at most 12%–15% among the 18–29 group. That figure falls sharply among the older groups.

### CD Collections (US) [AMONG THE 83% WHO OWN CDs]



### CD Collections (Germany) [AMONG THE 91% WHO OWN CDs]



As the revenue figures suggest, the US is moving toward a post-CD music culture more quickly than Germany. Although digital music file adoption is virtually identical in the 18–29 groups (79% US and 81% Germany), US digital music collections are larger and have more fully displaced the CD among those under 30 (see below). In the US 15% of 18- to 29-year-olds have no CDs. In Germany 7% have no CDs.

Here, as in the case of other media, average collection size is skewed by the small number of people with very large collections. In both the US and Germany, roughly 9% of adults have over 250 CDs; 2%–3% have over 500 CDs.



## DVDS

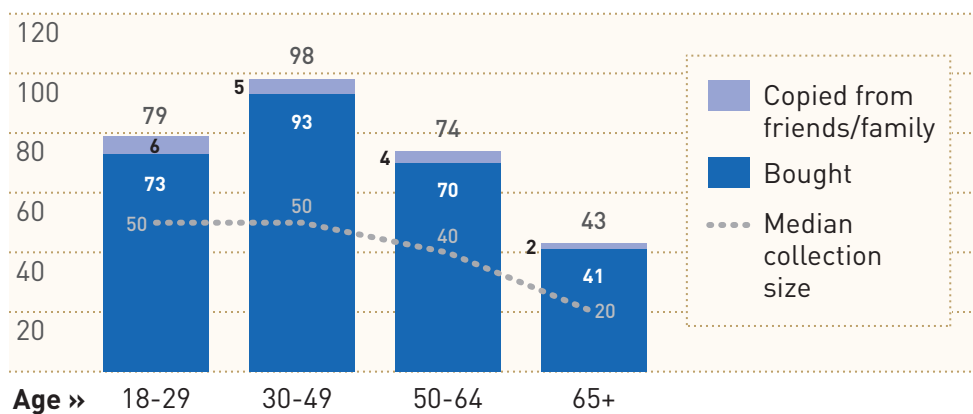
In contrast to CDs, there are sharp differences in US and German DVD ownership. The DVD market has been much stronger in the US over the past decade, with retail sales peaking at around \$18 billion in 2006 (before sliding to under \$7 billion in 2011). The German DVD market, shaped by higher prices and slower rollout of digital streaming alternatives, peaked in 2010 at \$1.2 billion (International Video Federation 2011). On average, across all age groups, Americans own roughly twice as many DVDs as Germans.

*These differences are also reflected in the frequency of large collections:*

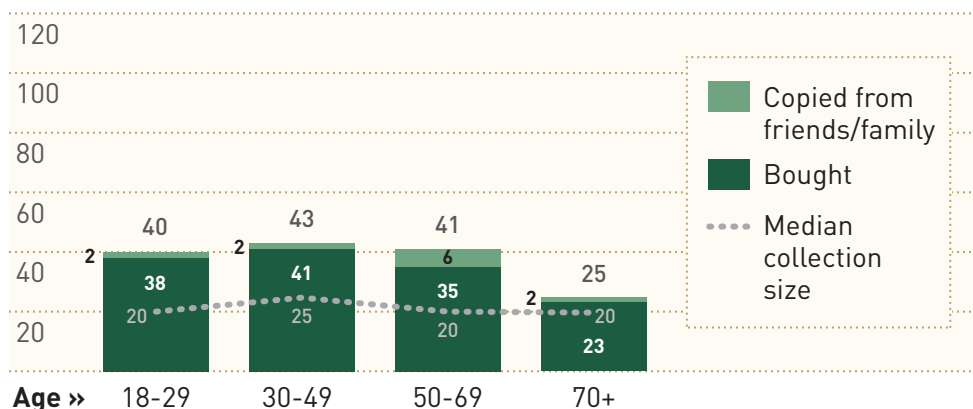
- **Seventeen percent of Americans have more than 100 DVDs; 4% have more than 300**
- **Five percent of Germans have more than 100 DVDs; only 1% have more than 300**

As with CDs, the vast majority of these DVDs are legally purchased. Copying plays a very minor role in DVD acquisition, peaking at roughly 8% of collections among those under 30. Nor has the pirated DVD trade played a significant role: only 7% of Americans and 3% of Germans have ever purchased a pirated DVD. In the US this trade faded to insignificance by the mid-2000s as broadband connections proliferated. In Germany it was never a significant factor.

### DVD Collections (US) [AMONG THE 82% WHO OWN DVDS]



### DVD Collections (Germany) [AMONG THE 77% WHO OWN DVDS]



Copying from libraries (which we explored only in the Germany survey) is also minimal—less than 3% acknowledged copying library DVDs. Only two respondents in the German survey (out of 1000) indicated that they had copied “most or all” of their collection this way.

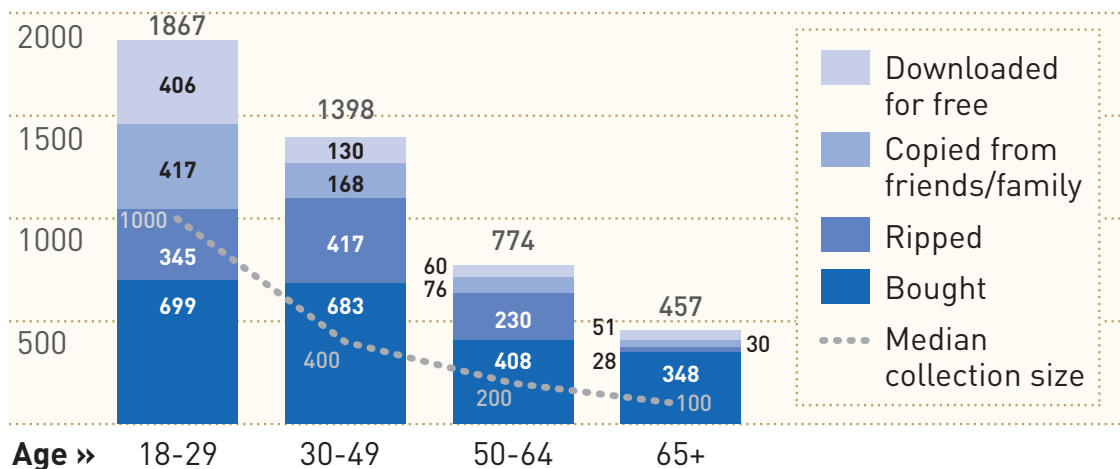
## MUSIC FILES

Youth dominance of copy culture is most visible in digital music. Among 18- to 29-year-olds in the US, the transition away from the CD is well underway: 79% own music files, with the average collection containing nearly 1900 songs and the median collection around 1000. Among older respondents, the percentage drops sharply: only 14% of Americans over 64 own music files. Average collection size in that group falls to around 450, with the median around 100. A caveat: these numbers are based on self-reporting, and should be viewed as rough estimates.

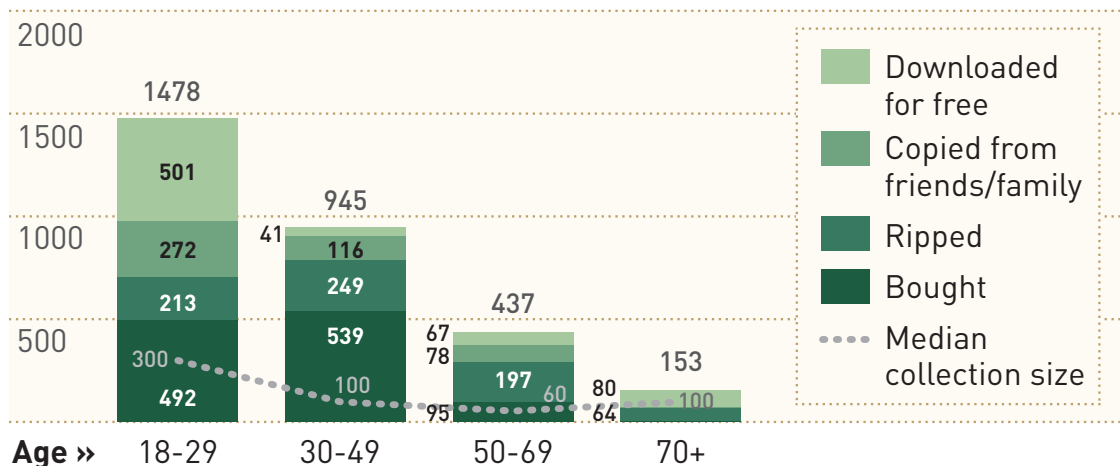
In Germany overall rates of ownership are very similar among the young: 81% of 18- to 29-year-olds own music files. Average collection sizes are smaller but comparable: just under 1500 songs among 18- to 29-year-olds. Ownership rates then drop sharply: 48% of 30-49 year olds own music files; 32% of 50-69 year olds; and 13% of those over 70.

Age also affects how people collect. In both countries the 18- to 29-year-old and 30- to 49-year-old groups show remarkably similar patterns of purchasing digital music and ripping their own CDs. Age makes virtually no difference

### Music File Collections (US) [AMONG THE 50% WHO OWN MUSIC FILES]



### Music File Collections (Germany) [AMONG THE 42% WHO OWN MUSIC FILES]



in the scale of either practice. But the average collection sizes of the two groups differ significantly—with the younger group outcollecting the older group by a third in the US and nearly 60% in Germany. The gap is almost entirely due to higher levels of copying from family and friends and file sharing.

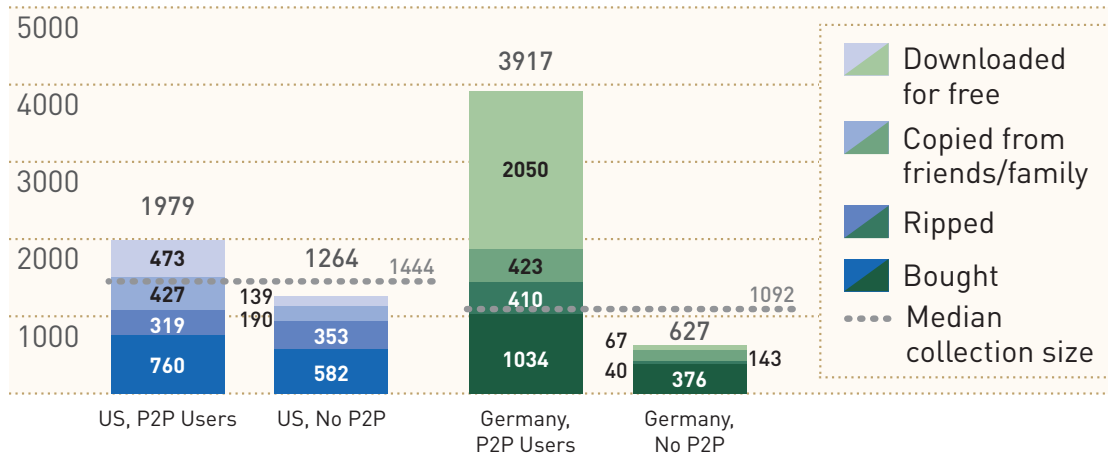
The rough comparability of music file ownership rates and average collection size in the two countries hides deeper differences in the organization of digital music culture, most sharply visible in median collection size. For adults under 30 the median collection in the US contains roughly 1000 songs; in Germany it has 300 songs. Although Germany and the US have similar numbers of large collections per capita—in both countries 3% of Internet users own over 5000 songs—the US has three times per capita as many medium-sized collections of 1000–5000 songs: 9% in the US; 3% in Germany. Put differently, digital music file collecting on a large scale is still rare in Germany. The CD remains the main collectors' format.

In both countries, the possession of medium and large digital collections tracks closely with P2P use—a practice that includes roughly 4% of German and 13% of American Internet users. We can filter the same set of questions about music file acquisition through P2P use.<sup>4</sup>

- **France, 2011:** According to the French enforcement agency HADOPI (2011a) there is a strong correlation, among Internet users, between spending on “digital cultural goods and services” and “illicit use” or file sharing. Of those who spend 100 euros per month on such goods and services, 64% admit to “illicit use” or file sharing. Of those who spend nothing, 36% admit to “illicit use.”

## Music File Collections: P2P Users versus non-P2P Users (US and Germany)

[AMONG THOSE WHO OWN MUSIC FILES]



4. The German P2P response pool is too small for statistically reliable breakdowns, but it is consistent with our broader account of German digital music culture.

Predictably, P2P users download much larger numbers of music files. Less predictably, they are also the heaviest buyers of digital music—by a roughly 30% margin in the US and by a much larger (though statistically unreliable) margin in Germany. Our study confirms numerous others on this point, including work by RIAA survey firm NPD (2012), the British government Ofcom (2012), and French enforcement agency HADOPI (2011).

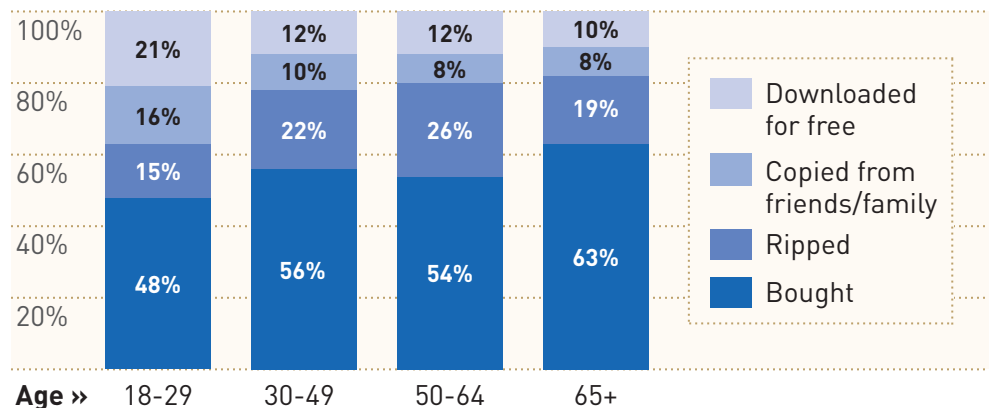
Overall, American Internet users buy significantly more songs than they download for free, by a ratio of roughly 7:4. As copying and downloading for free diminish in the 30- to 49-year-old group, purchasing remains the same, suggesting that these practices are mostly complementary to legal acquisition, not strong substitutes for it.

How much of these collections is “pirated”? The question is more complicated than it sounds. Under US law unauthorized downloading or copying is almost always presumed to be infringement. The most commonly accepted ‘fair use’ exceptions are relatively narrow. At the same time, our questions introduce two likely countervailing sources of error: legal free downloading on the one hand and underreporting of perceived infringement on the other. We can measure neither.

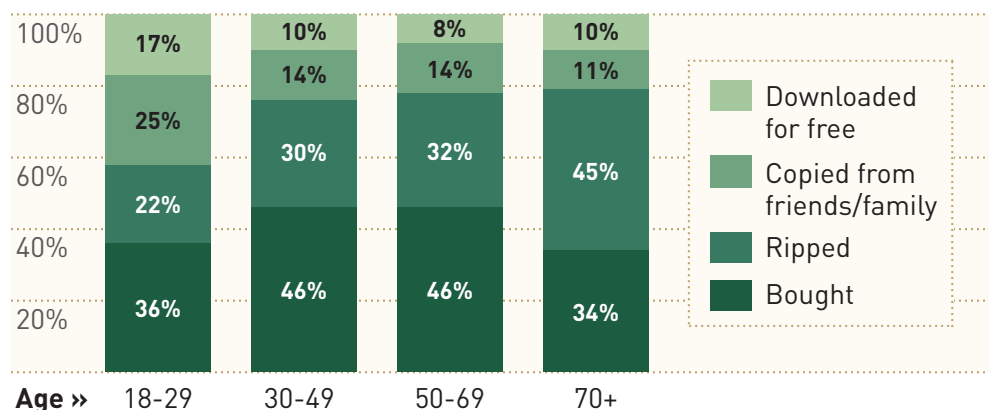
We can say that around 44% of the average collection of American 18- to 29-year-olds is copied or downloaded for free, and that this is likely a rough approximation of the infringing content in those collections. Among 30- to 49-year-olds, roughly 21% is copied or downloaded for free.

In Germany the unauthorized downloading of copyrighted material is infringement, but the legal status of “copied from

### Sources of Music File Collections (US)



### Sources of Music File Collections (Germany)



- US, 2011:** According to leaked results from a RIAA-funded survey (Ernesto 2012), downloading via P2P and file lockers accounts for a much smaller portion of US music collections than offline copying (hard drive sharing and “burning/ripping from others”). Downloading accounted for 24% of US music collections in 2010 and 19% in 2011. Offline copying accounted for much more: 44% in 2010 and 46% in 2011. Paid downloads and purchased CDs accounted for 35%.

friends/family” depends on the legality of the source material—a very difficult subject that the survey does not illuminate. The large percentage of files acquired this way makes it impossible to say how much of the average German collection is infringing.

In both countries sharing copies with friends and family plays a large role in acquisition: roughly 42% of file owners in each country share music files within close personal circles. In the US such copying represents a large share of the total music files owned by those under 30—some 22%. In Germany the number is slightly lower: 18%.

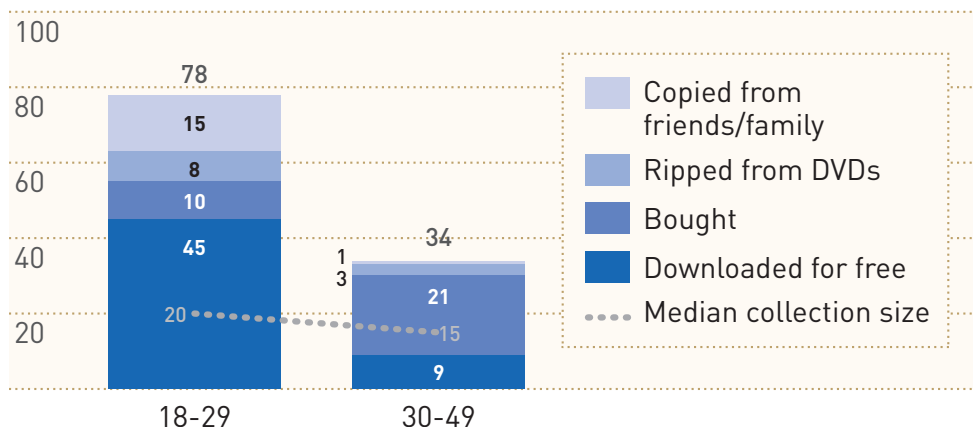
A somewhat different picture emerges when we eliminate the influence of large collections. When each respondent is weighted equally, the importance of personal sharing in German copy culture becomes clearer. American 18- to 29-year-olds attribute, on average, 16% of their collections to personal sharing. Germans in the same age group attribute 25% to personal sharing.

Generally speaking, per capita, Germans have smaller collections and share more of them with friends than Americans. In both countries copying and downloading for free drop sharply with age.

## MOVIE/TV FILES

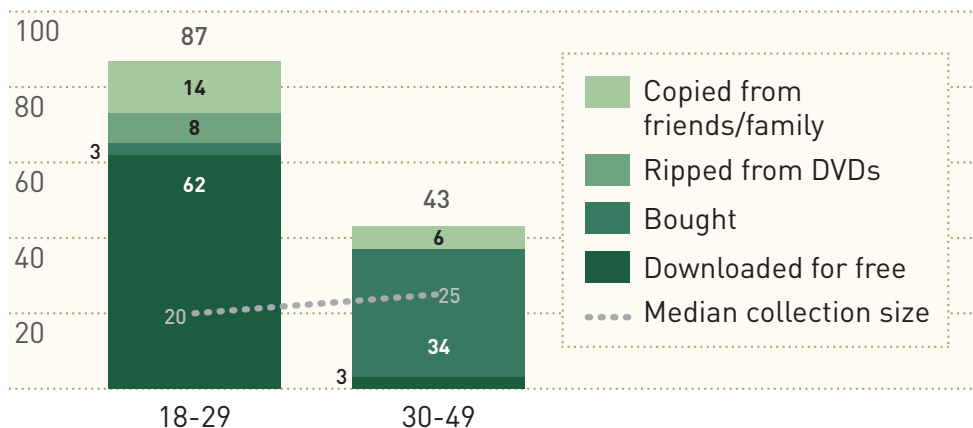
### Movie/TV File Collections (US)

[AMONG THE 14% WHO OWN MOVIE/TV FILES]



### Movie/TV File Collections (Germany)

[AMONG THE 15% WHO OWN MOVIE/TV FILES]



Only 14% of Americans and 15% of Germans own movie/TV files, and the vast majority of them are young. Because possession of movie/TV files in the two oldest age groups was negligible in both countries, we dropped them from our analysis.

Movie/TV file ownership provides a relatively weak window on home video practices because both legal and illegal services have gravitated toward other models. The legal distribution chain is largely locked down through cable and Internet streaming subscriptions, digital rights management, and specialized hardware. Premium cable channels are the elephant in this room, with over \$6 billion in US revenues in 2011 (of which nearly \$4 bil-



lion went to HBO) (Wallerstein 2011). Internet-based streaming services (mostly Netflix) earned \$473 million in 2010. Video-on-demand services like iTunes and Amazon.com earned only \$273 million in 2010 in the US. As a result, video file ownership tilts sharply toward informal acquisition.

Because of the small sample sizes, detailed breakdowns of collections and acquisition methods are volatile—especially in the German case.

Among the younger groups, the results are consistent with our overall picture of US and German audiovisual culture. US viewers experience less windowing and have more legal options than their German counterparts, including well-developed streaming services and on-demand pay TV services. Among young Germans, unauthorized downloading plays a larger role in meeting that demand. Seventy-one percent of movie/TV files owned by German 18- to 29-year-olds are downloaded for free, versus 57% in the US. In both countries, some of this demand has also shifted toward unauthorized streaming services.

## STREAMING

To date, research on unauthorized copying—“piracy”—has strongly favored two-sided models in which piracy in a given medium (e.g., recorded music) *substitutes* for some percentage of legal sales. Such models commonly underpin arguments for stronger enforcement: raise the cost of piracy and legal sales will grow.

The growth of streaming music and video sites, however, complicates efforts to map the media landscape and the role of copy culture within it. Simply put, it has become very difficult to say what substitutes for what. Does an infringing MP3 displace some portion of a legal CD, an iTunes single, a YouTube viewing, a Spotify listen, radio play, or nothing at all—as part of a massive archive that will never be played? Is there a “natural” level of demand for recorded music that infringement cannibalizes? Or—as we think is more likely—is music purchasing part of a dynamic allocation of income and attention to competing leisure goods, in which more music means less of something else? Access to music, especially, now involves a rapidly changing ecology of media and services that act as near—but not complete—substitutes. The situation is equally dynamic with regard to copying and file-sharing technologies, where direct download and video streaming sites have partially supplanted P2P file sharing.

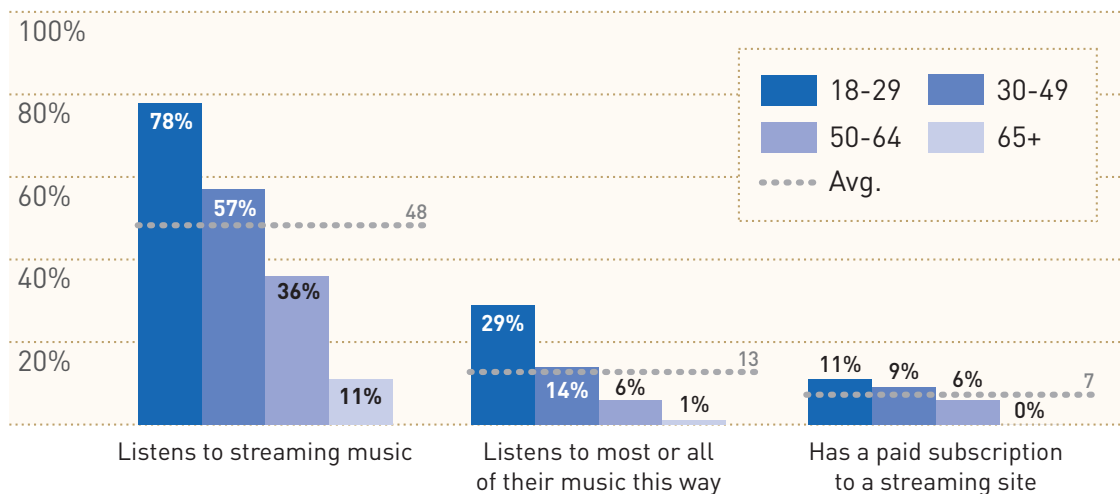
Music streaming is not new: Internet radio broadcasts began in the mid-1990s, and archive-based services like Pandora date back to 2000. But the use of such services has grown rapidly in recent years as cheap devices and higher bandwidth connections have proliferated. As with other new digital media services, use tilts sharply toward the young.

According to our data 13% of American adults rely on streaming services for “most or all” of their music listening—including 29% of those under 30. Over half of these heavy streamers—7% of adults—listen through paid subscription services.

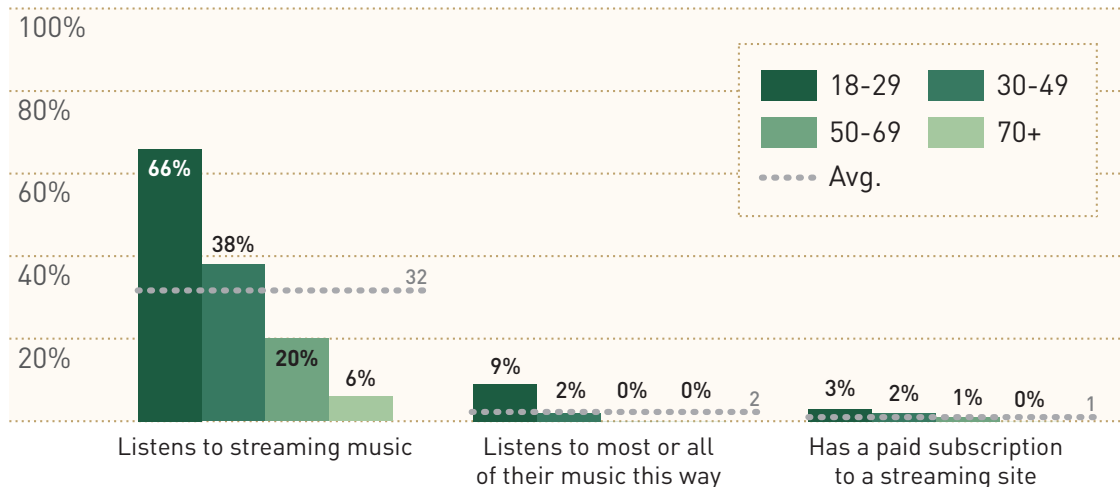
- **Germany, 2012:** A BITCOM survey from May 2012 showed that 41% of German Internet users use free streaming services like YouTube and Internet radio, 10% buy music downloads, and 3% pay for streaming services (BITCOM 2012).
- **UK, 2010:** A Wiggins survey (2010) found that 4% of UK residents have paid subscriptions to music streaming services, and 20% use free services

Germans make less use of streaming services than Americans in general, and much less use as a primary form of music listening. Only 2% of Germans listen to “most or all” of their music via streaming services. Listening habits also show the now familiar sharp age gradient. Specialized music streaming services have been available in Germany for some time, but adoption has been slow and newer services have not prioritized the German market. Spotify—developed in neighboring Sweden—launched in Germany only in March 2012.<sup>5</sup> For comparison, 22% of Swedes listen to Spotify on a daily basis (Findahl 2012).

### Streaming Music (US) [AMONG ALL ADULTS]



### Streaming Music (Germany) [AMONG ALL ADULTS]



For TV and movies, the difference is still greater. Nineteen percent of American Internet users watch TV shows and movies *via paid subscription streaming services* (almost entirely Netflix). In Germany the number of subscribers to comparable sites like Videoload or Maxdome is under 2%. In 2010 the total online video market in Germany was only €21 million (Solon 2011), compared to at least \$750 million in the US for the major pay and subscription services

5. After a protracted licensing negotiation with GEMA, the collective rights management association.

(neither number includes cable services). Timid licensing and windowing strategies by studios, poor usability, Windows DRM, limited platform support, and small catalogues have all played a role in the slow take-up of Internet-based video. Nevertheless, the market is expanding. iTunes started offering TV series in Germany in 2008 and movies in 2009. In June 2012 Netflix announced that it will expand to Germany.

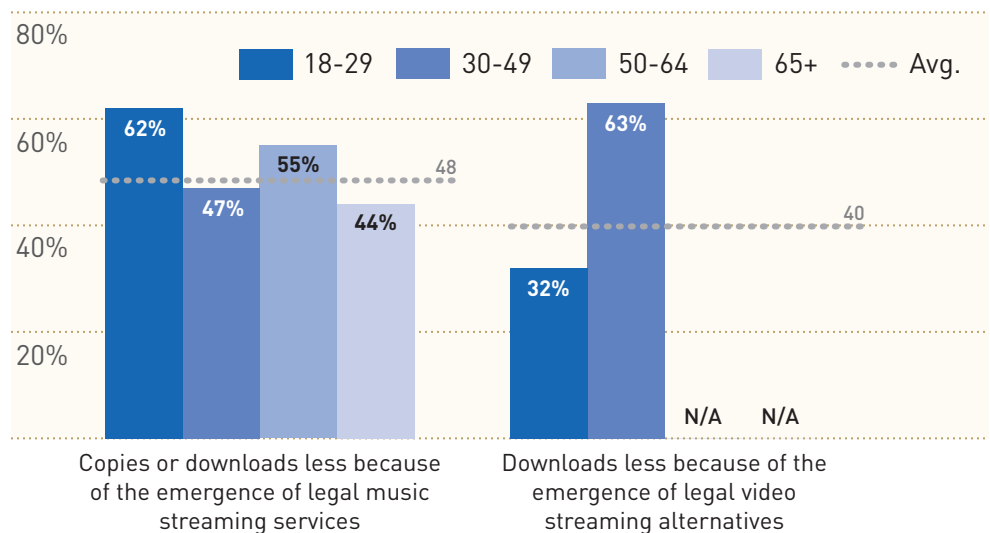
Copy culture fills the demand for a cheap, convenient, universal music library—a “celestial jukebox.” As legal streaming services become better direct substitutes for file sharing, there should be evidence of a shift toward those services. This appears to be the case: of the 30% of Americans who have copied or downloaded *digital music files* for free, 46% indicated that they now do so less because of the emergence of these services. (The US survey was conducted just after the US launch of Spotify in July 2011). The comparable figure for video—the so-called Netflix effect—is 40%.

Among American P2P users, who represent most of the high-volume file sharers, the number is still higher: 66% say they download music less because of the emergence of these services, and 16% have paid subscriptions to music streaming sites, compared to 7% of the general population.

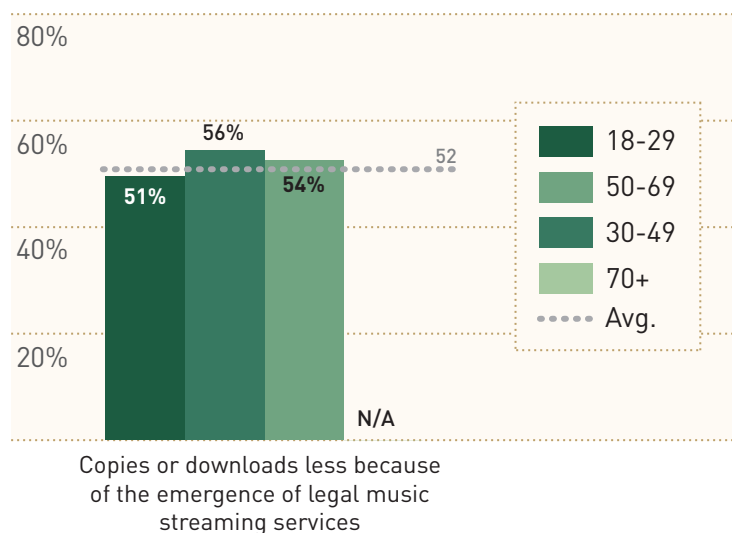
German downloading show a similar dynamic, with 52% of those who both “download for free” and stream music doing less of the former because of the latter. Among P2P users, the figure is 55%. Because very few Germans make use of legal TV/movie streaming services, there are no comparable results for this category.

What about illegal streaming of TV shows and movies? The major Hollywood studios have raised the alarm about unauthor-

### More Streaming = Less Copying & Downloading For Free (US) [AMONG THOSE WHO DO BOTH]



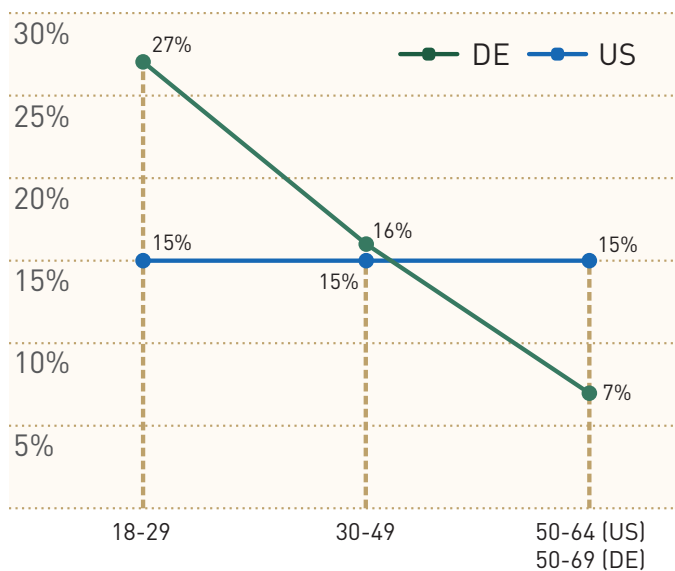
### More Streaming = Less Copying & Downloading For Free (Germany) [AMONG THOSE WHO DO BOTH]



- **Germany, 2011:** According to GfK 24% of Germans think that “watching new cinematic releases on portals like kino.to, movie2k etc.”—both well-known unauthorized sites—is legal (GfK 2011).

## Who Streams Pirated TV/Movies (US and Germany)

[AMONG THOSE WHO WATCH TV/MOVIES ONLINE]



- **Australia, 2012:** According to IPAF (2012), 8% of Australian Internet Users “use a website to watch a pirated TV show/series on the Internet” at least once per month. Five percent do so for movies. Among the different methods of viewing unauthorized TV/movies, 50% of “illegal downloaders” indicated they do so most often via downloading (P2P and cyberlockers); 24% do so via streaming; 8% use both methods equally. The shift from downloading to streaming is strongest among the young.

ized streaming over the past several years. Surveying on this issue is difficult because of the lack of clear differentiators between many legal and unauthorized services. Our questions attempted to differentiate such sites from widely recognized services such as Hulu (with its in-programming advertising) and Netflix (with its subscription model) in the US, and MyVideo and Videoload in Germany. German public broadcasters also run commercial-free, free-of-charge streaming services. Because of the complexity of this landscape, we have relatively low confidence in the results. We do see the most potential for error on the upside, as people mistake unauthorized services for authorized ones. GfK’s 2011 Digital Content Use survey in Germany suggests that such confusion is common.

With those caveats, our data suggest that around 15% of Americans who watch TV/movies via streaming services also watch at least some of them via unauthorized sites. This represents 8% of the wider adult population.

Among Germans, the number is 18%, or 9% of the overall population. This is roughly double the percentage of Germans who are P2P file sharers (4%), suggesting a shift toward the simpler, less vulnerable streaming model.

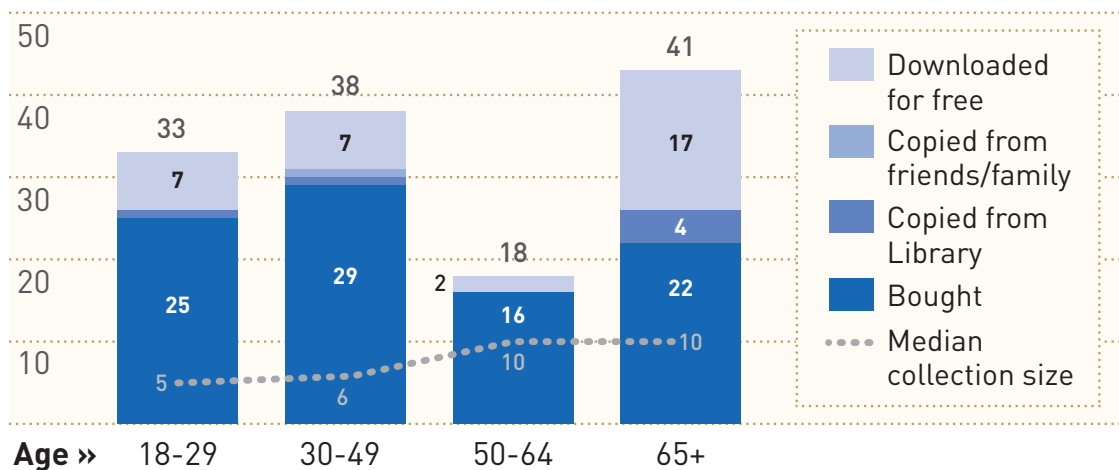
The strong German generational pattern is reproduced here, with 18- to 29-year-olds outpolling 50- to 69-year-olds by roughly 4:1. In the US our data suggest no visible generational effect for illegal streaming distinct from the general drop-off of online viewing with age.

## EBOOKS

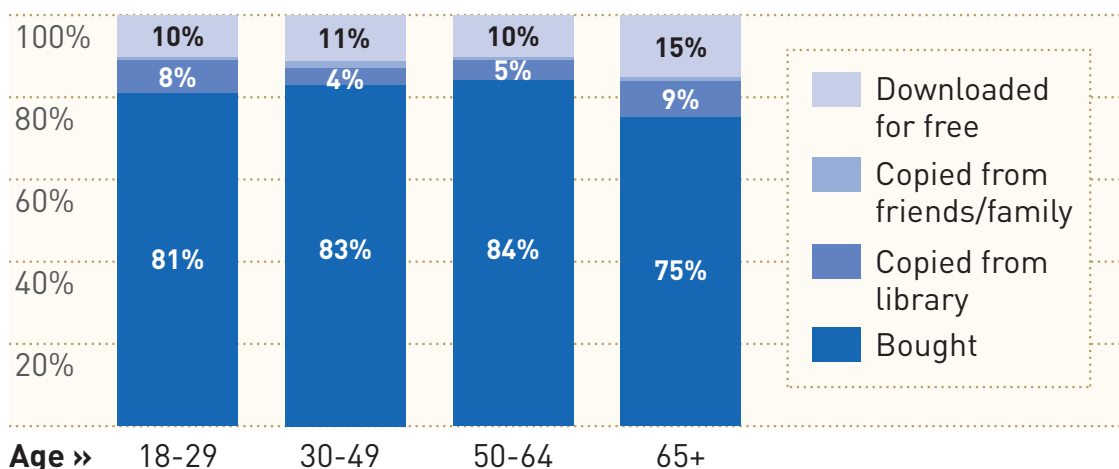
Tablet and e-reader ownership is far more common in the US than in Germany. Ten percent of Americans own tablets and 14% own e-readers. The corresponding numbers in Germany are 4% and 2%. Roughly 21% of American adults have at least one such device, compared to 5% in Germany. The market for e-books is accordingly much larger in the US. US e-book sales approached \$1 billion in 2011, representing 20% of book sales. In Germany e-books sales totaled \$50 million, or 1% of the book market in 2011 (GfK 2012). Lower rates of device adoption are part of this story, but there are also cultural and policy explanations: the German book market is organized around local bookshops, which anchor the commitment to physical formats. This culture is reinforced through tax policy: printed books are subject to a special value-added tax of 7%; e-books to the general one of 19%.

Our German sample of e-book owners was accordingly very small (N = 49). With caveats, we have included the data for the under-30 age group, which represent over half of these responses.

### E-Book Collections (US) [AMONG THE 15% WHO OWN EBOOK FILES]



### Sources of E-Book Collections (US)

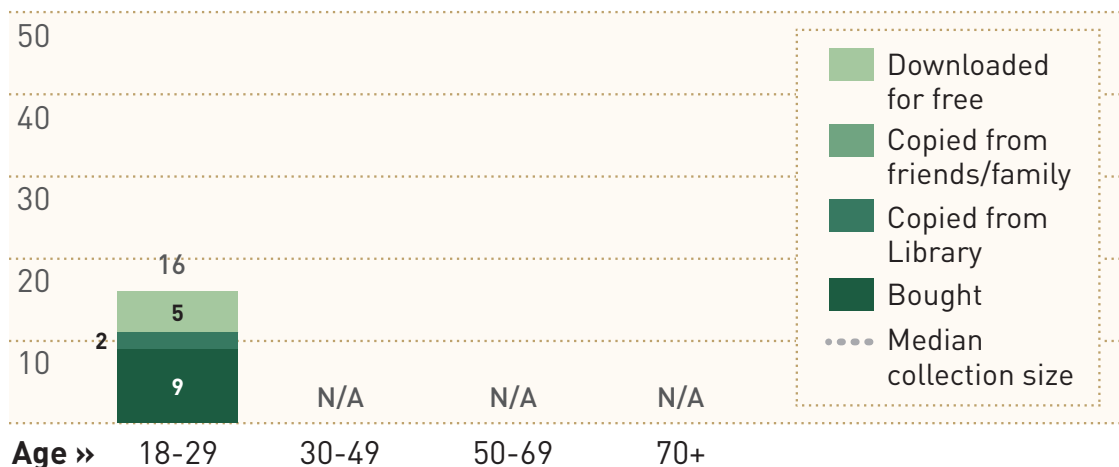


*Generally speaking, the US results show three things:*

- The US book market is organized to a large degree around monopoly vendors and locked devices. The vast majority of e-books (75%) are bought, not copied or downloaded for free. Sixty-nine percent of e-book owners have purchased *all of the books* in their collections. Copying from family and friends or from libraries is negligible in terms of the overall market—though the proportion of items “copied from libraries” becomes slightly more visible when controlling for collection size.
- Collections are still small. Median collection size hovers between five and 10 books. Only 4% of US tablet/e-reader owners (<1% of the general population) have over 100 e-books. Only 1% of US tablet/e-reader owners own more than 1000.
- Age shapes the adoption of devices but not subsequent e-book acquisition practices. Purchasing is relatively consistent across the age groups. (The jump in “downloads for free” among the 65+ group reflects the influence of a few outliers with large collections.)

German results are almost too scant to report. Roughly 10% of 18- to 29-year-olds own e-books, though collections are small. Buying is the most prevalent form of acquisition, but downloading plays a significant role. Large collections are virtually nonexistent. Only two respondents in our 1000-person sample had over 100 e-books.

## E-Book Collections (Germany) [AMONG THE 5% WHO OWN EBOOK FILES]



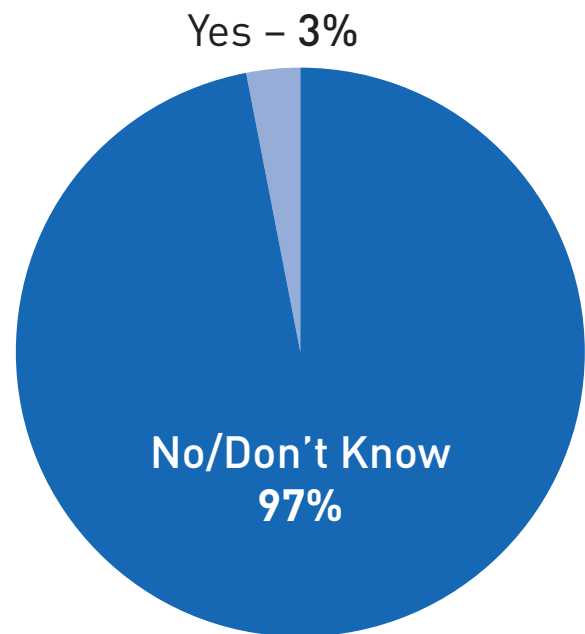
## GAME CONSOLES

There is much discussion but little publicly available data about the unauthorized copying of video games. Console-based video games are widely viewed as less vulnerable to such practices than personal computer games, due to the need for hardware or software modification of the consoles. But the landscape has changed quickly, and the Entertainment Software Association—the main representative of the game industry—now disputes this assumption, arguing that copying on these systems is as common as on their PC counterparts. Estimates of the unauthorized copying of PC games routinely run upward of 90% of the installed base.

Much of the attention to console piracy focuses on emerging economies, where game markets are often underdeveloped and high priced, and consoles are routinely sold through informal channels.

In the US, console “modding” (and, consequently, unauthorized copying) is clearly very rare. Forty-eight percent of the surveyed households owned game consoles (Xbox or PlayStation). Of these, roughly 3% (1.5% overall) had consoles that had been modified to play unauthorized copies of games. Of this 3%, a little over half had consoles that were modified at the time of purchase, and a third had consoles that were modified by the owners (in both cases, these are very small samples). We did not inquire about PC or mobile games, and this question was dropped from the German version due to time constraints.

### Has Your Game Console Been Modified to Play Pirated Games? (US) [AMONG THE 48% OF HOUSEHOLDS WITH CONSOLES]





# Copy Culture

## OVERALL TRENDS

The era of CD and DVD copying was brief. Low-priced CD burners arrived in the late 1990s. DVD burners followed in the early 2000s. By most accounts the personal copying of discs was widespread but small in scale, limited by the time and material costs associated with their reproduction. GfK (2010) puts the peak of disc burning in Germany between 2003 and 2005. According to our data the average collection in both the US and Germany today has only a handful of copied CDs and DVDs.

As digital file formats and high bandwidth became the norm, copy culture grew, with more sharing among friends, more downloading over the Internet, and more competition from other legal and illegal sources.

Large numbers of people participate in this copy culture on a casual level.

Roughly 46% of American adults and 45% of German adults have acquired media in ways other than by buying a licit product—whether by copying files or discs from family and friends; downloading music, TV shows, or movies for free; or purchasing pirated DVDs.

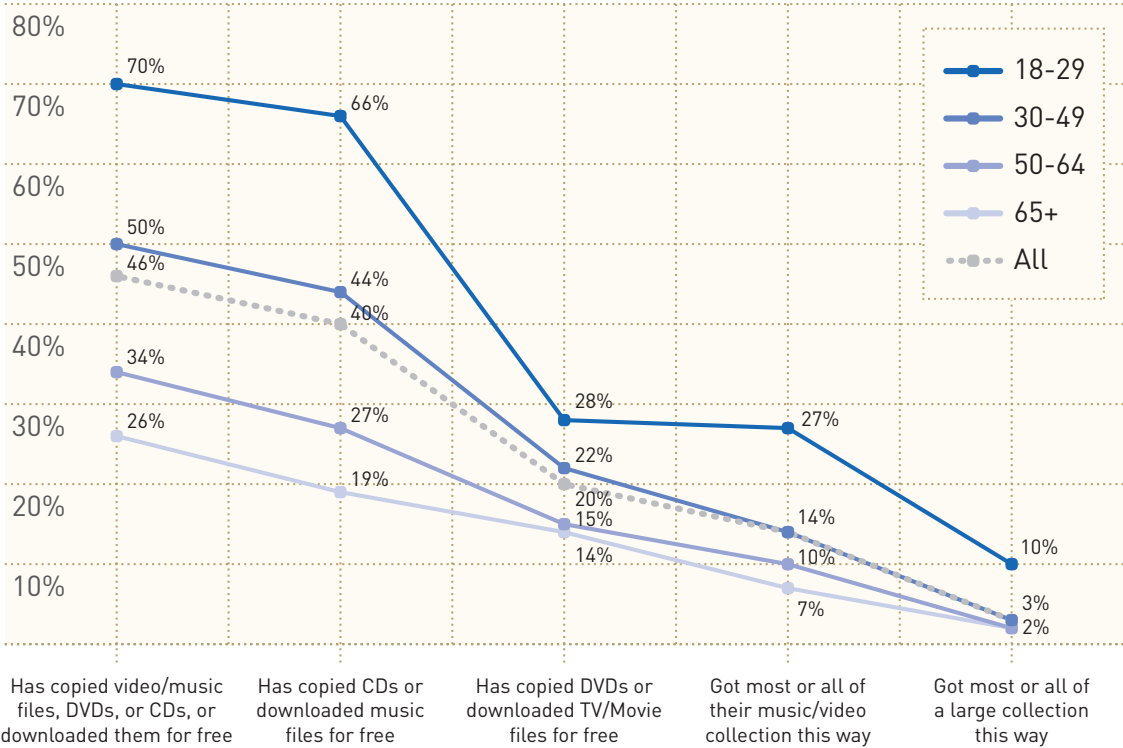
These numbers have a strong generational component: copy culture is, to a considerable extent, youth culture: among 18- to 29-years-old in both countries, participation in these practices reaches 70%.

But large-scale copying is still rare. Roughly 3% of Americans and 2% of Germans are “heavy” music copiers—for our purposes, those who have collections of more than 1000 files and who indicated that they downloaded or copied most or all of them. In both countries only 1% acquired these files primarily or exclusively through downloading.

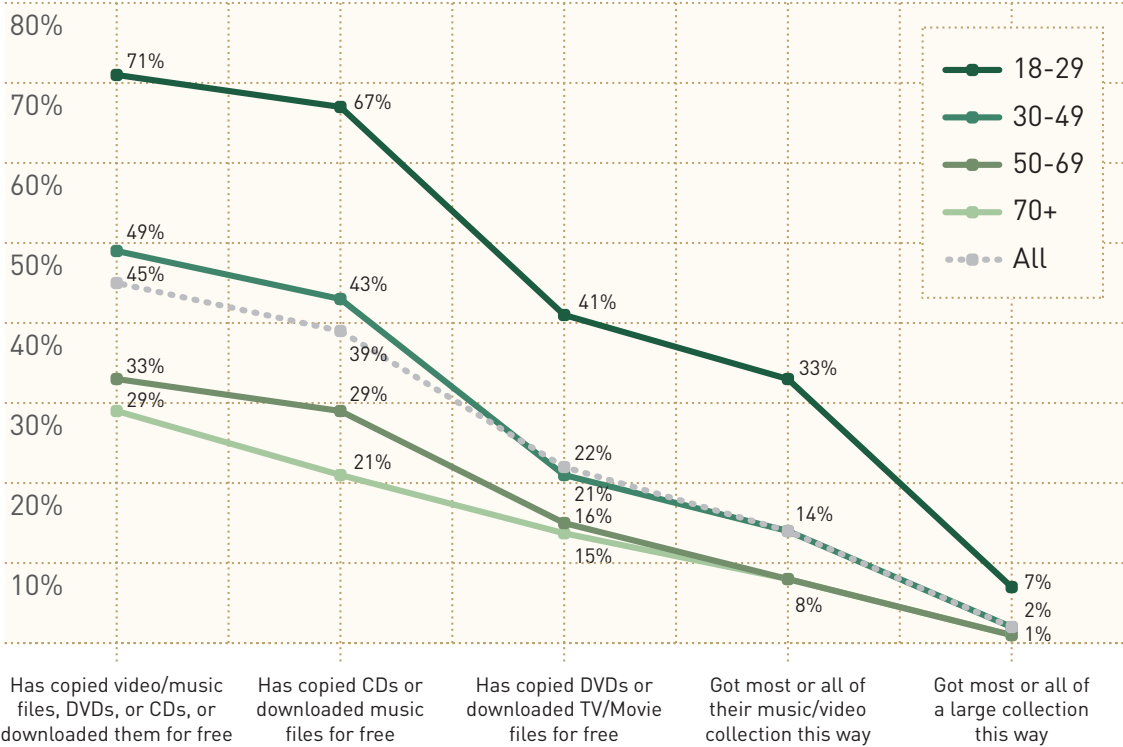
Only 1% of Americans and Germans are heavy copiers of TV/movie content—for our purposes, those who possess more than 100 movies or TV shows and copied or downloaded most or all of them.

- **Netherlands, 2009:** *A phone survey of 1500 Internet users found that 44% had downloaded media files without paying in the previous year. Downloading for personal use has been held to be legal under “private copy” rules in the Netherlands (Huygen et al. 2009).*
- **France, 2009:** *An online survey of 2600 Internet users by the French enforcement organization HADOPI found that 49% of users had engaged in “illicit consumption” of cultural products at some point and 25% had engaged in file sharing (via P2P and direct downloading) (HADOPI 2011b).*
- **Poland, 2011:** *A study of 1004 Poles found that 39% engage in informal copying and sharing of digital media—more than three times the number of people who had bought an album, book, or seen a movie in the past year. Among “heavy” Internet users, 72% had download files from P2P networks or file locker sites (Filiciak, Hofmohl, and Tarkowski 2012).*

Copy Culture (US) [AMONG ALL ADULTS]

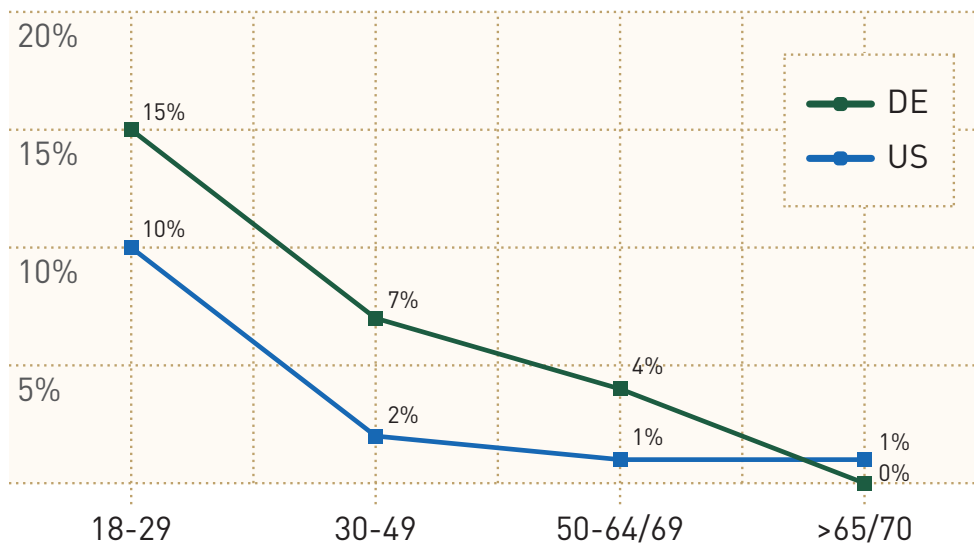


Copy Culture (Germany) [AMONG ALL ADULTS]



- **Germany, 2011:** GfK (2011) estimated that 17% of Germans share media collections via hard drives—reaching nearly 38% for Germans under 30. Nearly 40% burn CDs or DVDs.
- **UK, 2010:** A Wiggins (2010) survey found that 38% of UK residents swap movie and music files with friends: 8% do so “regularly,” 15% “occasionally,” and 15% “rarely.”

## Gives Copies of TV/Movies to Family and Friends (US and Germany) [AMONG INTERNET USERS]



In both countries personal copying among family and friends plays a large role in copy culture—again tracking sharply with age. Among Americans under 30, sharing with friends/family contributes roughly two-thirds as much to average collection size as online file sharing (16% vs. 25%). Among Germans under 30, collections are smaller and personal copying is more prevalent—contributing 25% to the average collection (compared to 17% for online file sharing). Germans are more than twice as likely as Americans to have copied most or all of their digital music collections from friends and family (11% DE vs. 5% US).

With regard to video collections, personal copying and sharing also play a larger role in Germany: 15% of German Internet users under 30 share movie and TV files, compared with 10% in the US.

## ONLINE FILE SHARING

Our survey allows for only a rough estimation of the shift from P2P services to direct download or cyberlocker services. We asked two questions in this regard: a specific one regarding P2P use...

**“Do you ever use the Internet to download or share files using peer-to-peer file-sharing networks, such as BitTorrent or LimeWire?”**

And a more general question for each media file type:

**“What percentage of your [music files, movie/TV files] are downloaded for free from a website or file-sharing service?”**

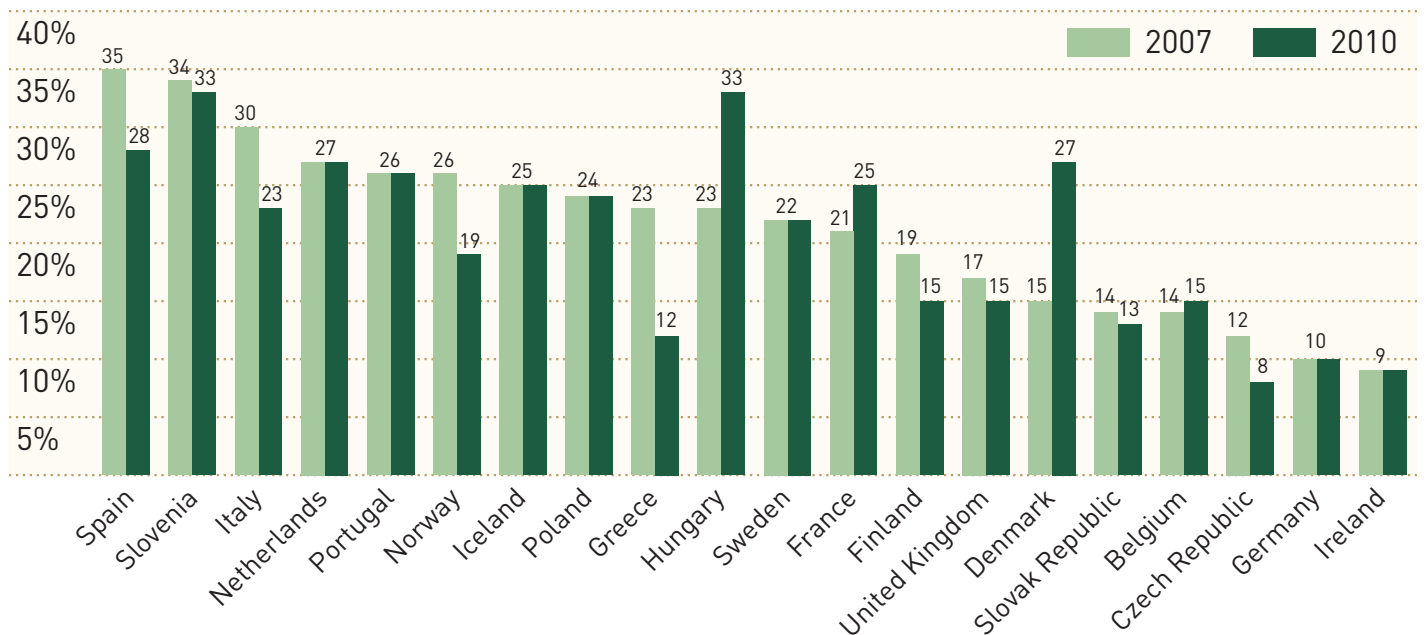
Neither question offers a perfect proxy for infringement. Answers to both will capture some legal acquisition, from promotional MP3s to creative commons–licensed videos. It is clear that many people download music for free: 41% of music file owners in the US and 28% in Germany do. Among video file owners, 22% and 24% do so, respectively.

A better indicator of large-scale unauthorized copying is, in our view, P2P use, which tracks closely with the possession of medium and large collections of music and film in both the US and Germany. This does not mean that large collections are necessarily acquired predominantly through P2P use, but rather that people with large collections are likely to have engaged in P2P file sharing.

Roughly 13% of American Internet users have used P2P services. In Germany—according to our data—only 4% have done so. As with other practices, these numbers are significantly higher among the young. Among Americans under 30, 20% of Internet users use P2P services; among Germans under 30, 8% do.

## Peer-To-Peer File Sharers in Europe

[AMONG INTERNET USERS, SOURCE: OECD/EUROSTAT]

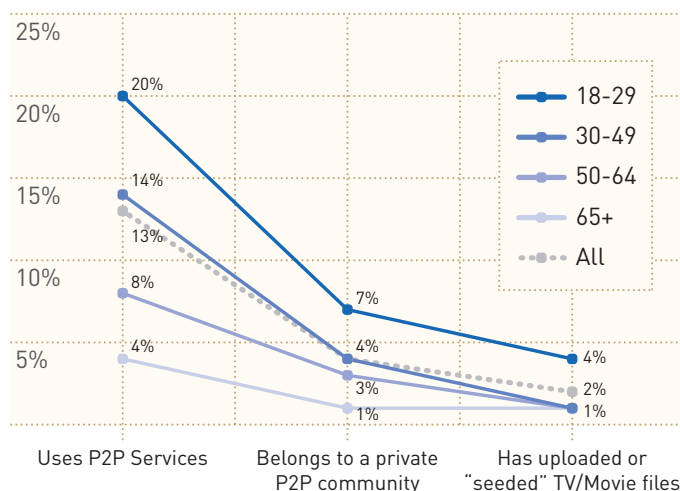


For both Germans and Americans, these numbers fall sharply for more active forms of participation in file-sharing networks. Only 4% of American Internet users, on average, belong to private file-sharing communities (which require invitations and registration, and often the maintenance of minimum upload-to-download ratios). In Germany the number is 1%. Only 2% of Americans and 1% of Germans say they have uploaded TV or movie files to file sharing services.<sup>6</sup>

Why is P2P file sharing less common in Germany? Part of the explanation may be that Germans have been slower to adopt digital file formats for music. Digital collections—both bought and copied—are smaller. Physical formats remain very popular, accounting for 82% of sales in 2011, compared to just under 50% in the US (Nielsen/Soundscan 2012; RIAA 2012).

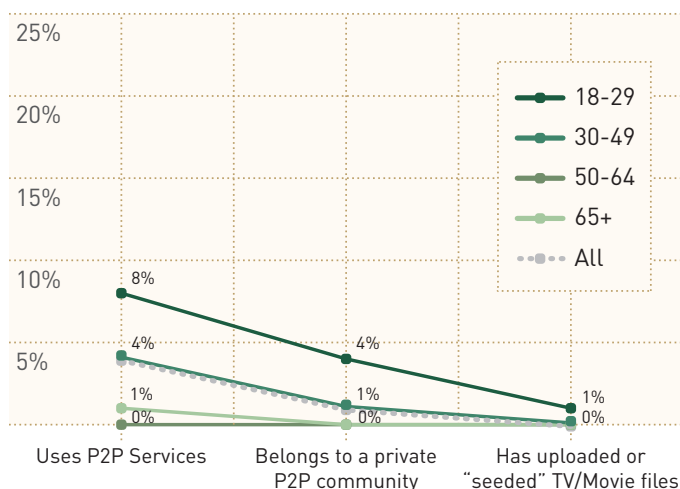
## File Sharing Practices (US)

[AMONG THE 79% WITH HOME INTERNET ACCESS]



## File Sharing Practices (Germany)

[AMONG THE 77% WITH HOME INTERNET ACCESS]



- **US, 2011:** NPD's Annual Music Survey (2012) estimated that 13% of American Internet users have downloaded music from a P2P service, down from 19% in 2006.
- **OECD, 2011:** The last major Eurostat/OECD compilation of Internet use studies reported overall European P2P use at around 20% of Internet users, comparable to the 19% reported in 2007. German P2P use is described as 10% of Internet users in both 2007 and 2011—consistently among the lowest in Europe. US P2P use is characterized as 15% in the study, based on data from 2005 (OECD 2008; OECD 2011).
- **US, 2009:** A Warner Music Group Survey (2010) found that 13% of adults in the US are "avowed pirates."
- **France, 2009:** A TNS Sofres / Logica (2009) survey reported that 29% of French Internet users have illegally downloaded content. Among "daily" Internet users, 36% have done so. Another 8% and 9%, respectively, have "used" illegally downloaded material..
- **France, 2011:** A survey by HADOPI (2011a) found that 25% of French Internet users use P2P file-sharing services

6. The distinction is usually moot for P2P services, where every download is also a potential upload. Sharing via cyberlocker sites involves "uploading" in a more conventional sense.

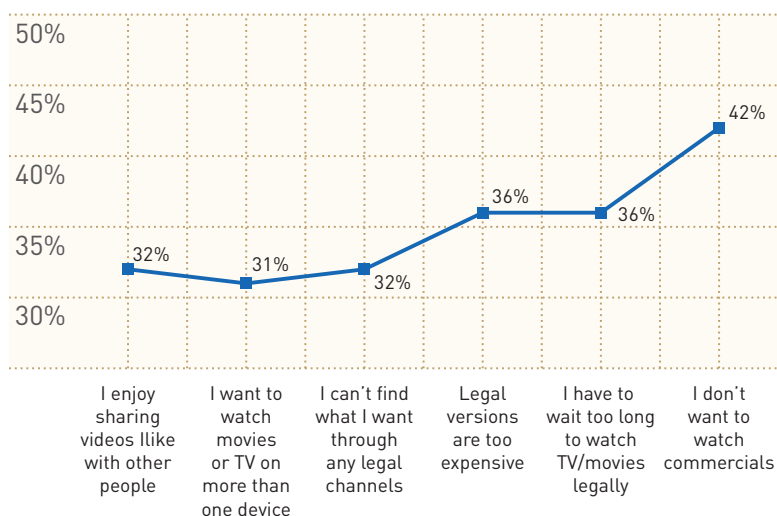
The disparity may also reflect an absolute decline in German file sharing—a claim made by GfK (2010), whose music industry-sponsored surveys have tracked a one-third drop in the quantity of music illegally downloaded per year since 2004.<sup>7</sup>

In the narrow case of P2P use, German enforcement almost certainly plays a role—probably in diminishing the absolute level of up- and downloading (as GfK argues), but also certainly in pushing users toward less observable means of sharing and downloading. Because P2P activity is relatively easy to monitor, P2P users have become vulnerable to large-scale private enforcement—principally in the form of cease-and-desist letters demanding financial settlements. These practices are much more prevalent in Germany than in the US, and consequently have produced stronger incentives to adopt less exposed means of sharing files (see below under **Penalties**). The rise of direct download and streaming services in the past three years is partly explainable in these terms, as is the persistence of personal copying and the growth of anonymizing and proxy services (see below under **Privacy and Countermeasures**). Overall rates of participation in our broadest copy culture metric—copying and downloading for free—are, in any event, very similar in the two countries.

- **Canada, 2009:** A survey by Angus-Reid (2009) found that 23% of Canadian Internet users have downloaded digital music files from peer-to-peer file-sharing sites in the past month.
- **UK, 2012:** A Wiggins (2012) survey found that 12% of adults in the United Kingdom “download unauthorized films or TV programmes” regularly or occasionally, with another 7% doing so rarely. Responses for music and software were nearly identical, as were results for P2P use and use of “linking/hosting” sites.

## WHY DOWNLOAD?

### Why I Download TV/Movies For Free (US) [BASED ON AMERICANS WHO DO]



Americans who download video files for free cite relatively balanced motivations for their behavior, ranging from sharing with others, to the desire to watch video files on more than one device, to a distaste for commercials. The German responses were similar, but the sample was too small to provide reliable results.

<sup>7</sup> Following an even sharper drop between 2003 and 2004—the year in which legal downloads became available via iTunes. Because GfK does not release topline results or data, these claims are hard to evaluate.

# Attitudes

## WHAT IS “REASONABLE”?

**Sharing copyright-protected media with family and friends is widely accepted in both the US and Germany.**

In the US 80% of those who have music files say it is “reasonable” to share them with family members, and 60% approve of sharing with friends. Concerning movie and TV files 73% view sharing them with family as reasonable, and 59% approve of sharing them with friends.<sup>8</sup> In Germany 76% view sharing music files with family as reasonable, and 55% approve of sharing with friends. For TV and movies the numbers are 80% and 63%. Germany shows a sharper differentiation in attitudes by age and broader acceptance of sharing TV and movies.

**In contrast, making unauthorized copies available through online networks receives low levels of support in both countries.**

Our results suggest that a loose distinction between private and public sharing continues to organize public opinion on these issues: the former is reasonable, the latter is not. In this respect, public opinion mirrors and informs legal traditions that have historically distinguished private, non-commercial contexts for infringement from public ones. The results also point to the breakdown of this consensus as young adults redefine the scope and scale of personal networks. In the Facebook era, the concept of ‘friends’ has become very elastic, and is increasingly mediated by the Internet. We will see the difference this makes when we come to **Penalties**.

## US RESULTS

Few Americans with music files think it is “reasonable” to upload copies to websites where anyone can download them (15%), post links to “pirated copies” on websites such as Facebook (10%), or sell unauthorized copies (4%). Overall numbers are similar for TV/movies but differ in the age distribution. Significantly more younger people (18–29) view sharing, uploading, and linking to TV/movie files as reasonable—especially uploading (24%) and linking to unauthorized videos (22%). Such results are not surprising; we live in an audiovisual culture that is not only shared, in the passive sense signaled by the term “audience,” but also increasingly and actively sharing.<sup>9</sup> In all cases, approval of these practices sharply exceeds the percentage of respondents actually engaging in them.

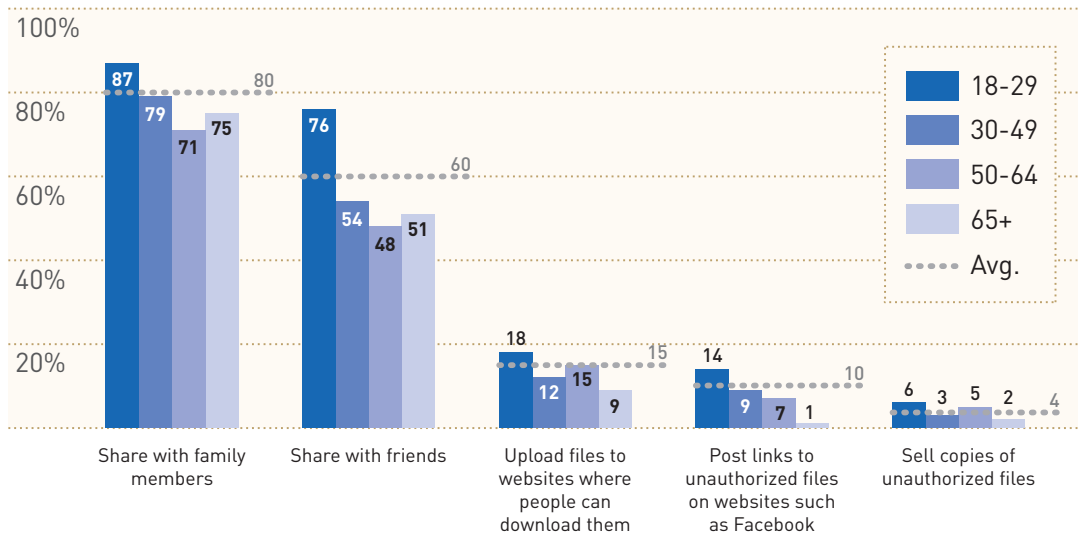
**8.** Our preliminary Research Note mislabeled these findings. It presented data based on all Americans, rather than the narrower category of those who have music or video files.

**9.** Both US and German surveys generated unexpectedly high rates of approval among the oldest cohorts on the issue of sharing with family and friends. In the US >65 group, high approval for “share with friends” appears to reflect a conflation of sharing with collective time-delayed viewing of TV via a TIVO or set-top box. We do not think this conflation figures significantly in the other age groups. This possible explanation does not apply to the German results, where “vertretbar, Kopien Ihrer Dateien an Freunde weiterzugeben” unambiguously means “passing along copies.”



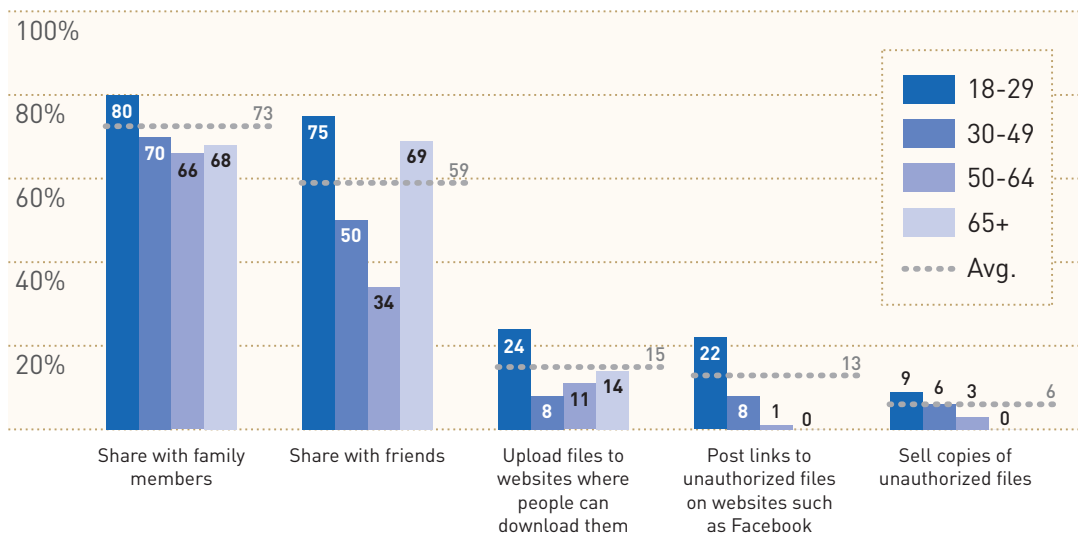
## Music Files: Is It Reasonable To... (US)

[AMONG THE 50% OF ADULTS WHO HAVE MUSIC FILES]



## Movie/TV Files: Is It Reasonable To... (US)

[AMONG THE 14% OF ADULTS WHO HAVE MOVIE/TV FILES]



The views of P2P users track closely with those of the wider under-30 group—including the relative lack of tolerance for uploading. (P2P software typically makes available to others any files that are being downloaded.) This ambivalence is striking and confirmed at several points in our findings. Clearly many P2P users have some sympathy for arguments against file sharing *outside personal circles*—at least when these arguments are made explicit. Whether these are ethical concerns about “theft” or fairness or broader uncertainty about the systemic effects of large-scale file sharing is unclear. It is clear that, in P2P communities, such concerns are subordinated to other factors such as cost, availability, and convenience.

- **Australia, 2012:** *According to the film and TV industry association IPAF (2012), 49% of “persistent illegal downloaders” and 54% of “casual illegal downloaders” agreed with the statement that “movie/TV piracy” is “stealing/theft.” When asked Internet whether they contribute to “the problem of TV/movie piracy,” 74% of persistent illegal downloaders agreed with the statement that “It’s not something I give a lot of thought to” (vs. 65% of other groups).*

What about the 50% of Americans who *don’t* have music files? These are predominantly older Americans and non-Internet users. Surprisingly, these groups show very little divergence in attitudes. Seventy percent think it is reasonable to share with family, 52% to share with friends, 18% to upload, 6% to post links to pirated copies, and 9% to sell unauthorized copies.

The trend is very similar for movie and TV files. We conclude that the important shift in attitudes is among young adults—the natives in a culture of digital sharing. The views of older groups, in contrast, are relatively stable, *independent of participation in digital media culture*. This stability likely reflects the persistence of an older set of norms grounded in practices of sharing through face-to-face relationships—via books, discs, and tapes—but not through online networks.

## GERMAN RESULTS

Results among German digital media owners are broadly similar. An expansive view of what is reasonable correlates strongly with youth—especially on the issue of sharing with friends. Among 18- to 29-year-olds, 73% view sharing music files with friends as reasonable, compared to 55% in the general population. For TV/movies 79% of young adults and 63% of the general population view sharing as reasonable.

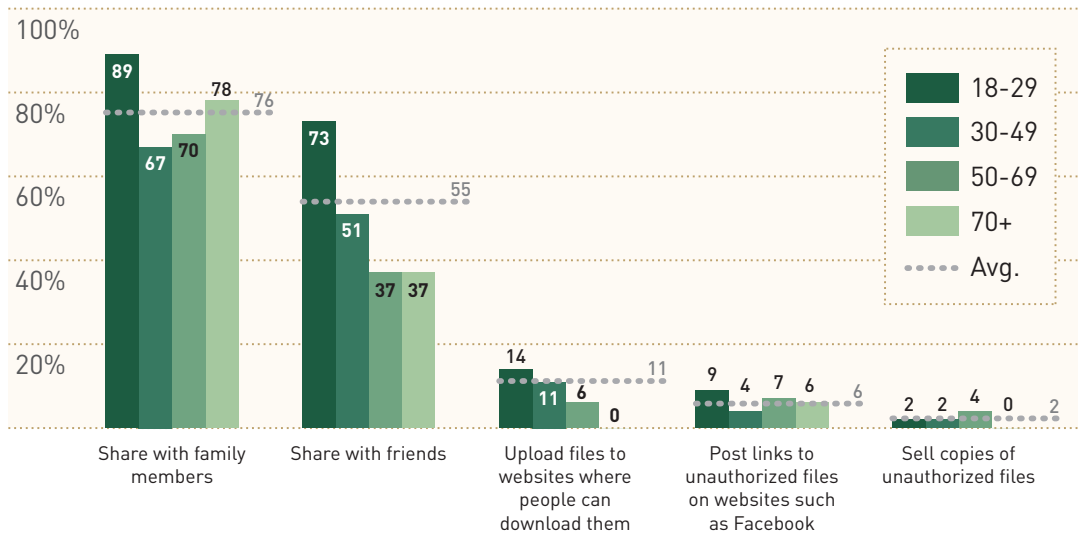
In Germany broad views of what is reasonable are also common among those 70 and over. Here our results are qualified by small sample sizes: only 7% had music or video files. But our confidence is increased by the extent to which this tolerance is echoed in other results that have larger samples, notably on questions of enforcement. Compared to the two younger cohorts (50–64 and 30–49), the German postwar generation is more disposed toward sharing and more distrustful of enforcement and other exercises of state power.

There is, accordingly, an Internet politics of the old as well as the young in Germany, with support for a culture of IP enforcement anchored by the middle aged.

- **Germany, 2011:** *Some surveys ask, instead, about perceptions of legality—a question that measures understanding of copyright law rather than acceptance of practices. According to GfK 15% of Germans think downloading from P2P networks is legal, and 8% think making media content accessible on social networks is legal (GfK 2011).*
- **Mexico, 2012:** *A Parametría survey (2012) asked about “sharing various content on the Internet without the authors’ authorization.” Thirty-eight percent said that such sharing was a “crime,” 34% said it was part of one’s “right to obtain information,” and 28% did not know.*
- **Poland, 2011:** *A Centrum Cyfrowe study asked “active Internet users” for their views on the statement that “using pirated movies and music is theft.” 28% agreed; 47% disagreed.*

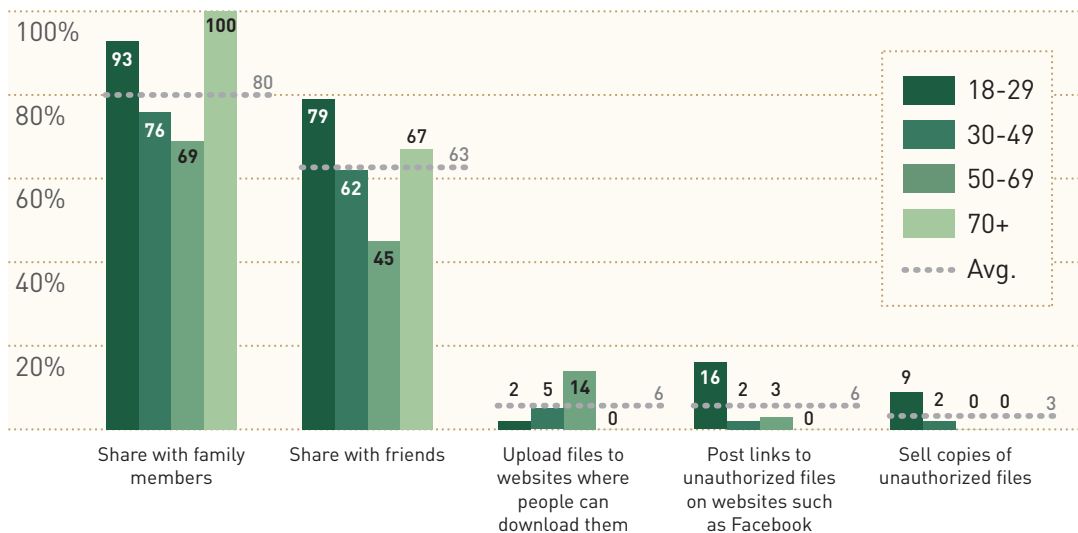
## Music Files: Is It Reasonable To... (Germany)

[AMONG THE 42% OF ADULTS WHO HAVE MUSIC FILES]



## Movie/TV Files: Is It Reasonable To... (Germany)

[AMONG THE 15% OF ADULTS WHO HAVE MOVIE/TV FILES]



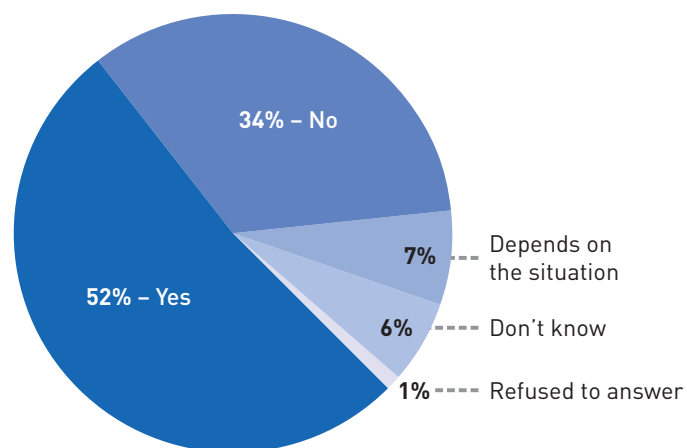
As we see throughout this study, age is the main differentiator. Neither gender, nor income, nor politics were significant factors in differentiating attitudes toward sharing in the US and Germany.

In our view these trends suggest that time favors relaxed norms of use, and that a successful realignment of the law, business models, and social practices will need to allow wide latitude for personal copying and sharing among friends—or make access so cheap and easy that those informal practices become irrelevant.

## PENALTIES

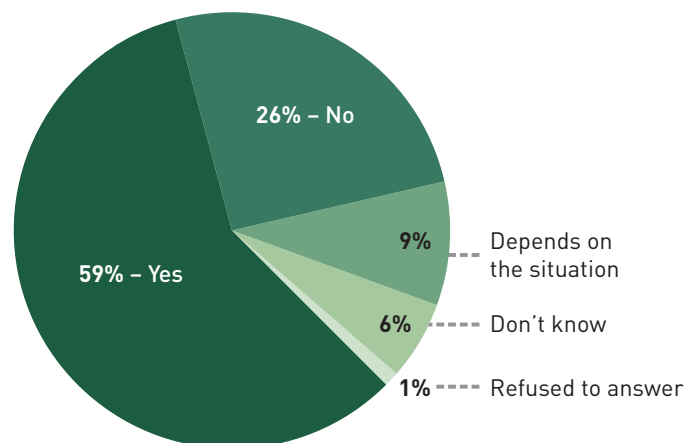
### Should Downloading An Unauthorized Song Or Movie Be Punishable? (US)

[AMONG ALL ADULTS]



### Should Downloading An Unauthorized Song Or Movie Be Punishable? (Germany)

[AMONG ALL ADULTS]



Only a slim majority of Americans (52%) say “people should face punishment if they download an unauthorized copy of a song or movie from a website or file-sharing service.” Thirty-four percent oppose penalties altogether, 7% say it depends on the circumstances, and 7% do not know or did not answer.

**Among American 18-29 year olds, only 37% support penalties. 53% oppose them.**

**German support for penalties is somewhat higher:** 59% support penalties, 26% oppose, and 9% would consider the circumstances. Here, the youth factor is much less pronounced. Among 18-29 year olds, 56% support penalties.

**Among both Germans and Americans, support for penalties is limited to warnings and fines.** In the US, 51% percent of adults support warnings or fines for unauthorized downloading.

Twenty-eight percent support limits on the speed or functionality of the Internet (e.g., “bandwidth throttling” or restricting access to certain sites).

Only sixteen percent support disconnection from the Internet as a penalty (72% oppose). Among those supporters, most (58%) would drop their support if it meant disconnecting households rather than individuals—which it does.

Interestingly, 41% of US P2P users *support penalties for unauthorized downloading*—just 11% below the average and marginally higher than among young adults. Among German P2P users, support for penalties comes in well below the average at 38%. Clearly, the practice is a matter of some ambivalence within the file-sharing community—something we see, too, in the shift toward legal streaming solutions and the stated willingness of P2P users to pay for cheap, convenient access. See **Legalizing File Sharing**.

Among Germans, only warnings receive majority support (59%). Half of the population supports fines, 28% support limits on the speed or functionality of the Internet, and only 22% support disconnection from the Internet as a penalty. (Due to time constraints, we did not ask the question about household-level disconnection.)

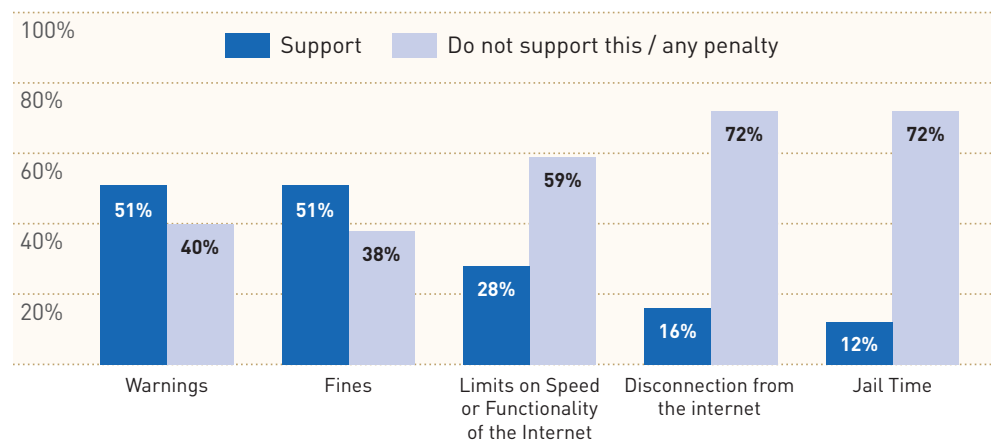
**Among young Germans, Internet disconnection is very unpopular, even among those who favor penalties.** Only 24% of penalty supporters under 30 support disconnection. Overall, 14% of those under 30 do.

Opposition to disconnection also rises sharply with income (which in turn correlates with the propensity to buy media). Among penalty supporters who make more than €3000/month, 20% support disconnection; 74% oppose it

- **Canada, 2009:** In an Angus Reid survey (2009), 45% of Canadian Internet users described P2P users as “doing what people should be able to do on the Internet.” Only 3% “believe file-sharers are criminals who should be punished by law.”

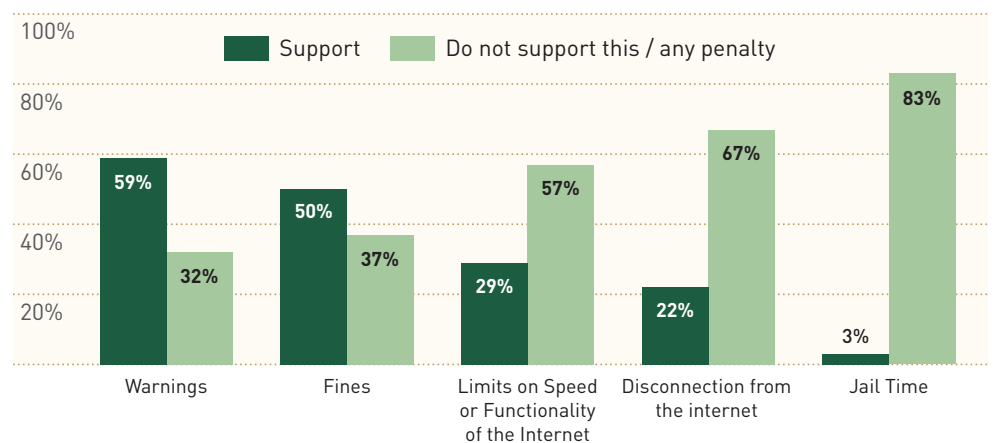
## What Is An Appropriate Penalty For Downloading An Unauthorized Song Or Movie? (US)

[AMONG ALL ADULTS]



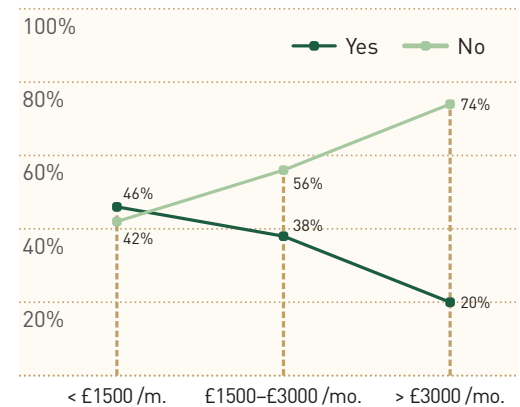
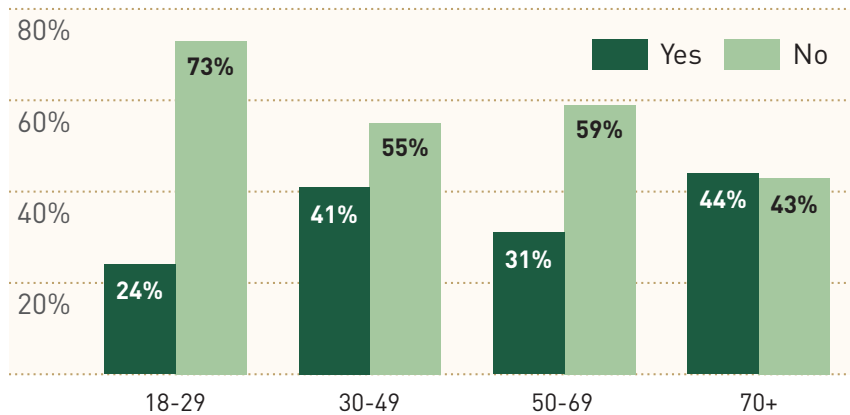
## What Is An Appropriate Penalty For Downloading An Unauthorized Song Or Movie? (Germany)

[AMONG ALL ADULTS]



## Should Infringers Face Disconnection? (By Age & Income, Germany)

[AMONG THE 59% WHO FAVOR PENALTIES]



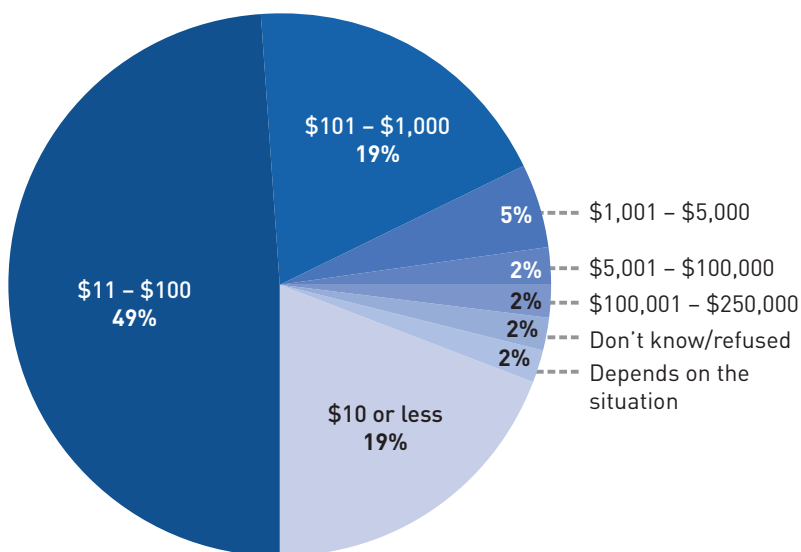
- UK, 2010:** Wiggin's 2010 Digital Media Survey asked questions about penalties in the wake of passage of the 2009 Digital Economy Act. Among other provisions, the DEA created a framework for "graduated response" in cases of repeat infringement, leading to disconnection from the Internet. Among Wiggin's respondents, strong penalties for repeat offenders attracted minimal support: bandwidth throttling, 7%; suspended Internet access, 11%; criminal prosecutions and fines, 14%.
- Poland, 2011:** A Centrum Cyfrowe study (Filiciak, Hofmohl, and Tarkowski 2012) asked whether "the law should punish people who illegally share movies and music more severely." Fourteen percent agreed with the statement; 60% disagreed.
- Germany, 2012:** GfK asked about penalties for the narrower act of "making available" infringing content online—a term most likely equated with uploading. Seventy-seven percent supported fines; 50% supported bandwidth throttling; 47% supported Internet disconnection "for 1-3 months."

## FINES FOR DOWNLOADING

Among Americans who support fines, 68% support amounts under \$100 for the unauthorized downloading of a movie, and 19% support fines of “less than \$10.” This contrasts sharply with US copyright law, where the statutory penalty for willful infringement ranges from \$750 to \$150,000 per act. Fines over \$1000 attracted only 9% support. Fines over \$100,000 were supported by less than 1% of Americans.

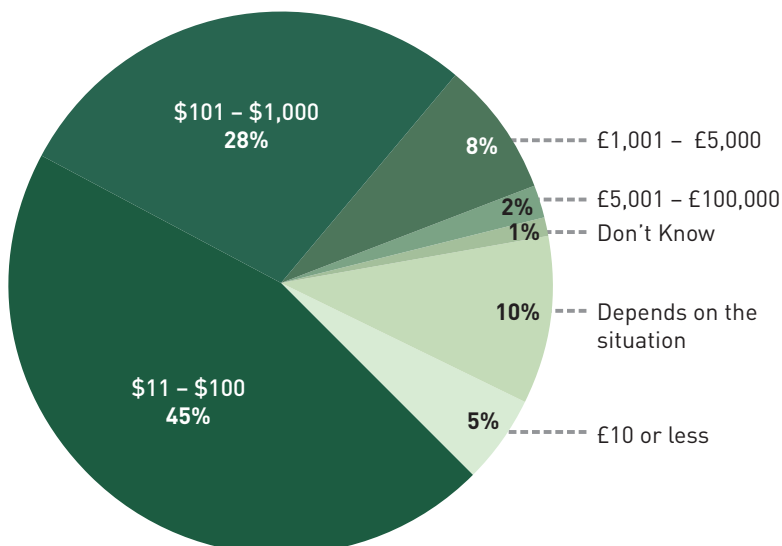
### Proposed Fine For Downloading One Movie (US)

[AMONG THE 51% WHO SUPPORT FINES]



### Proposed Fine For Downloading One Movie (Germany)

[AMONG THE 50% WHO SUPPORT FINES]





US supporters of fines were also asked about appropriate penalties for unauthorized downloading of a song. In this case, recommendations shifted lower: 31% supported fines of “less than \$10,” 44% supported “\$11 to \$100” fines, and 15% supported “\$101 to \$1000” ones. Support for higher fines was minimal.

**German supporters of fines aimed a bit higher.** Only 5% supported fines under €10; 45% supported fines between €11 and €100; 28% supported fines of €101–€1000. Since 2008, German copyright law requires that prior to suing, plaintiffs must first ask defendants to sign a cease-and-desist declaration (§97a UrhG), which typically triggers damages and lawyers’ fees in the range of €300–€1,000 for single titles. Unlike in the US, infringement claims have not been bundled into much larger claims against individuals, although there have been cases of serial actions against individuals who prove willing to pay. The majority of noncommercial infringement cases are settled out of court. German law does not allow for statutory damages, but rather makes determinations of damages based on the cost of an appropriate license. In commercial cases plaintiffs can alternatively demand the profits from the infringing use.

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## WILL IT WORK?

There is a lively debate, at present, about the effect of warnings and penalties on online infringement. Several surveys have found file sharers to be at least potentially receptive to warnings: GfK in Germany (2011) found that 45% of file sharers claimed that they would be dissuaded by warnings; HADOPI in France (2011a) put the number at 34%; Wiggin 2010 in the United Kingdom found that warnings would make 34% “take measures to protect themselves,” including (but not limited to) reduced file sharing.

Warnings take many forms. In 2009 France implemented a public system (HADOPI) for issuing warnings and—upon a third notice—initiating legal proceedings alleged infringers. By early 2012 HADOPI had sent 822,000 first warnings and 68,000 second warnings. By June 2012, 314 alleged infringers faced the final strike, where a court can issue fines and/or an Internet ban of up to one year. The first and to date only conviction came in September, against a man who everyone agrees did not personally infringe. The new Socialist government has announced its intention to “redesign” and possibly defund HADOPI, casting serious doubt on the future of the system (Guess 2012; Farivar 2012).

A US version of HADOPI—the Copyright Alert System—is supposed to come into effect in early 2013. This is a private system set up by rights-holder groups (especially the MPAA) and the major ISPs. It envisions five or six strikes leading to bandwidth throttling and other “mitigation” measures but not—according to current statements—disconnection. Under the current guidelines, further penalties can be pursued through the courts. Proponents prefer to describe the alert system as an educational initiative, which is true provided one understands education primarily in terms of fear of punishment.

Germany does not have an official warnings regime, but it has become home to one of the world’s most active “cease-and-desist” industries. In 2010 at least half a million cease-and-desist letters were received by alleged infringing P2P file-sharers, demanding payments of half a billion euros in damages and lawyer’s fees. In mid-2011 the German ISP association ECO reported that ISPs were receiving court orders to hand over the personal data of 300,000 Internet subscriptions per month. A 2012 survey commissioned by the German association of consumer organizations found that 4.3 million Germans, or 6% of the population, have received a letter, demanding damages and lawyers’ fees of on average €800 (VZBV 2012). Under threat of civil litigation, the majority of recipients reportedly sign the agreements and pay the requested amount (Gulli, Abmahnwahn, and Abmahnwahn-Dreipage 2011).

Law-firm fronts like the US Copyright Group and Copyright Enforcement Group have adopted similar strategies in the US (following the precedent set in the early 2000s by the RIAA), but US courts have been increasingly hostile to the practice and have repeatedly dismissed efforts to bundle cases, use the courts to force settlements, pursue mass

requests for Internet subscriber data, or—more recently—claim that an IP address is a foolproof means of identifying an individual. Particularly aggressive groups like Rightshaven have been crippled by adverse judgments and countersuits. Nonetheless, the cost-benefit equation continues to favor the firms. By mid-2011 an estimated 200,000 defendants had been named in suits in the US, with many more likely the recipients of pre-litigation threat letters. There is no public data on how many have settled. No recent cases against individuals have been brought to trial.

Organizations like HADOPI and IFPI have claimed success for surveillance and penalties based on apparent declines in P2P use in the wake of stronger enforcement. But, assuming these declines are real, they can reflect two factors: an overall decline in file sharing due to fear of enforcement or a shift toward less observable means, such as direct downloads or streaming. One way to explore this difference is to survey users on their downloading activities over time. Another is to look at what happens to markets for the affected goods in the wake of changes in enforcement.

In Germany GfK has sufficient long-term data for the first approach. GfK surveys have found a significant absolute decline in illegal music downloading in all forms since 2003 and a parallel (though in absolute terms, slight) rise in legal sales. These data points have been used by a variety of parties to justify the cease-and-desist efforts. For our part, we find it entirely plausible that 4.3 million legal threats have had a dissuasive effect. According to GfK, 25% of 20-29 year olds claim to know someone who has been “legally affected” (GfK 2012) by these letters. That is an astonishingly wide-ranging culture of enforcement.

But even in the context of this massive campaign, it is unclear how much of the decline can be attributed to enforcement. Much of the drop preceded the expansion of the cease-and-desist industry, with the largest year-to-year decline occurring in 2004. Free streaming services grew throughout the period and now represent the primary means of listening to music for 9% of those under 30. Legal digital sales are indeed up in Germany, but from a very low baseline and—as IFPI has emphasized in other contexts—less than in neighboring countries like France. The CD remains far more popular than in peer countries—but so do physical books, which have not been part of the piracy/enforcement dynamic. Because GfK does not share detailed findings or data, its results cannot be examined in any detail.

The second approach takes us to France. With the French HADOPI three-strikes model moving toward its final penalty phase, the first relevant market-based analyses are beginning to emerge. Based on iTunes sales data in Europe, Danaher et al. (2012) describe a positive and (so far) persistent “HADOPI effect” on iTunes sales as the warnings regime began to be publicly discussed in 2009, resulting in a 22.5% increase for songs and a 25% increase in album sales (versus a control group of European countries). Again, claims of causality have a *prima facie* logic, but, as in Germany, we think more work needs to be done to isolate it from other changes in digital markets and enforcement practices. As we noted above, we are skeptical of frameworks that assume direct substitution between pirated and purchased products. Media markets have become very complex, with many partial substitutes competing for money and attention. Notably, the same period saw the introduction of major competitors to iTunes (e.g., Spotify) in most of the control countries, *but not France*—a difference that could contribute to France’s higher relative iTunes growth rates. Nor is it clear that HADOPI’s warnings regime produced an enforcement climate significantly different from those of other European countries, such as Germany, the United Kingdom, Sweden, and Spain, which have all seen major increases in public and private enforcement activity in recent years—including a similar 2010 announcement in the United Kingdom of impending three-strikes measures (as yet unimplemented). In terms of actual pun-

- **UK, 2012:** *Wiggin’s most recent survey (Wiggin 2012) asked respondents about their anticipated behavior as the United Kingdom prepares to introduce three-strikes enforcement measures. Among UK respondents, 27%–28% indicated that they plan to do more downloading of unauthorized music, film, and software in the next 12 months; 16%–18% plan to do less.*

ishments, France is well behind the European curve.

Our study does little to illuminate these questions directly, but it does provide evidence of the diversity of the file-sharing ecology, marked by direct downloading, streaming, private networks, and offline copying. Given the low costs of transition between these methods, we would be surprised if P2P-specific measures such as HADOPI have more than a marginal impact on either file sharing or sales over time. And of course the major copyright stakeholders know this. As HADOPI officials have made clear, P2P surveillance is not an end point in the enforcement effort but a step on the way toward more comprehensive measures (Roettgers 2010).

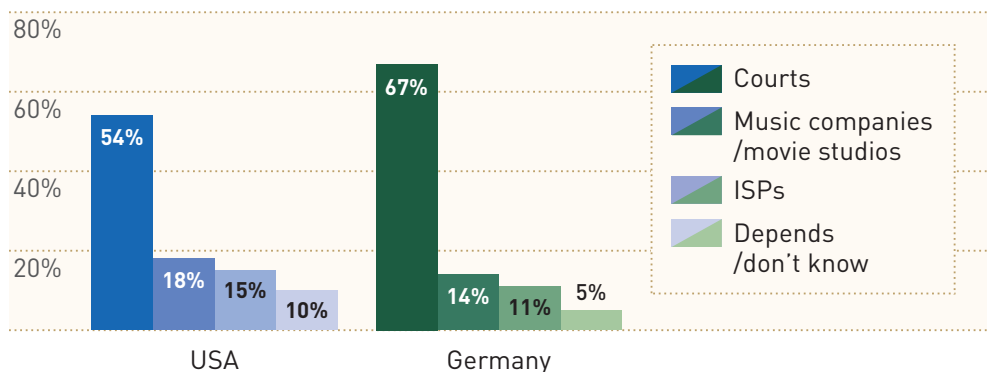
As we shall see below, many Germans (and some Americans) use online privacy technologies that thwart current surveillance measures. One impact of warnings is to push file sharers toward anonymization and encryption technologies, setting up a direct conflict between future enforcement measures and privacy. Larson and Svensson (2010) have found ample evidence of this shift in Sweden, where strong enforcement measures were introduced in 2009.

## WHO JUDGES?

Charges of copyright infringement are typically handled in three ways: (1) through the sending of takedown notices to services hosting content uploaded by their users, (2) by sending cease-and-desist letters to Internet subscribers from whose IP addresses infringing content was made available, and (3) failing those measures,

through civil litigation. Only a handful of cases in the US and Germany have been prosecuted under criminal law, which has generally been reserved for infringement on a “commercial scale.” The most recent case in Germany targeted the movie streaming and download site kino.to, and led to sentences from two-and-a-half years to four-and-a-half years against the group’s operators. The site’s founder will also have to hand over €3.7 million allegedly earned from advertising on the site.

### Who Should Adjudicate Charges Of Copyright Infringement? (US and Germany) [AMONG ALL ADULTS]



**Germans have clear views about what constitutes due process in copyright infringement cases. Sixty-seven percent indicated that the courts are the proper authority in determining the truth of charges of infringement.**

**American views are somewhat softer. Fifty-four percent say that a court should make the determination of whether a person has committed copyright infringement.** Only 18% percent say the music companies or movie studios should make that decision; 15% percent propose that ISPs play that role. (The rest responded that “it depends on the situation” or did not answer.)

The recent six-strikes agreement between US music and film companies and ISPs to warn and then punish infringers does not provide for judicial review.

## SHOULD INTERMEDIARIES BLOCK INFRINGING MATERIAL?

To date, we have lived with a mostly *ex post* enforcement model, in which rights holders react to online infringement by filing complaints with site or service owners. This was the approach established by the 1998 Digital Millennium Copyright Act (DMCA) in the US and the 2000 Electronic Commerce Directive in the EU, which specified the responsibilities of site owners in regard to infringement claims and provided “safe harbor” from liability if they met them—chiefly, responsiveness to “takedown notices” for infringing content. The boundaries of the safe harbor have been a subject of debate ever since, with US courts generally asserting a broad understanding of the concept, while European courts have produced more diverse interpretations that have significantly clouded its meaning (Edwards 2011).

The goal of much recent enforcement legislation is to shrink the safe harbor. US and European content industries are trying to move Internet enforcement from an *ex post* model to an *ex ante* one, in which ISPs, search engines, social networking companies, and other intermediaries assume responsibility for screening and blocking infringing content on their networks—or face liability. This shift was a major stake of the 2011 Stop Online Piracy Act (SOPA).

What do people think about these issues? The truth is that they have rarely been asked. Because these proposals raise a mix of relatively new political and technical concerns, public opinion is, we think, still very much in formation on these issues—susceptible to the way in which questions are framed. We tested a number of functionally equivalent terms for ‘blocking’ infringing materials, including “screening” and “censoring.” We also asked whether people would support the monitoring of their Internet use to prevent infringement, and we explored their comfort levels with the different types of organizations that might play these roles.

Because of the relatively high degree of Internet literacy required to address this set of questions, we posed them to the largest relevant sample: home Internet users in some cases (US 72% of the population; DE 75%) and all Internet users in others (US 79%; DE 77%). Tracking on other questions suggests that the results are valid within our margin of error for the wider population.

What we see in the results is an emergent *ordering* of values online: a progression from simple judgments about whether people support copyright or law enforcement (they do) to efforts to rank values when they conflict. As the Internet becomes the platform for a wide range of forms of human activity and expression, it becomes home to more of these conflicts. It becomes necessary to make decisions about tradeoffs—about which values matter more.

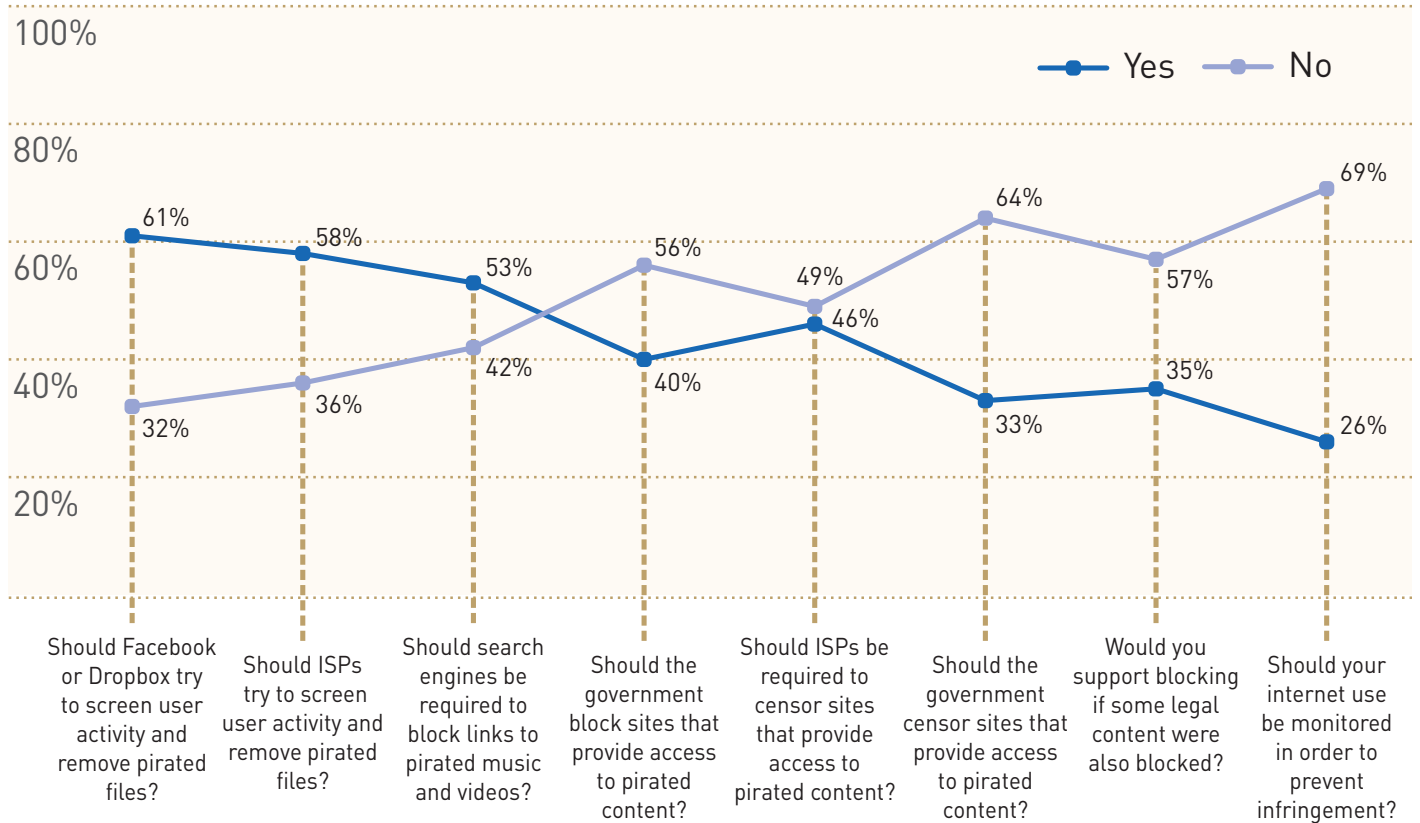
**In the US, majorities value both copyright and enforcement in general but will prioritize privacy, freedom of speech, and fear of government intrusion when there are conflicts.** The SOPA debate was, arguably, the first political demonstration of this preference order.

**In Germany our data show much higher support for online enforcement across the board—up to and including explicit government censorship of sites (52% support). But they also show a sharp reversal of support when such measures threaten privacy.**

## US RESULTS

Predictably, the softest language evokes the highest support for enforcement. On the far left: Should websites like Facebook, Dropbox, Rapidshare, and others that allow links or files to be uploaded by users “try to screen all material and try to reject pirated music and video”? The question downplays conflict, costs, and difficulties. Sixty-one percent said yes; 32% no.

## Blocking Copyright Infringement (US) [AMONG INTERNET USERS]



Support for enforcement drops slightly when the topic shifts to blocking and the language becomes more coercive: Should ISPs be “required to block access to sites that provide access to pirated songs and videos”? A 58% majority responded yes; 36% said no.

What about search engines? Should they “be required to block links to pirated music and videos online”? Fifty-three percent say yes; 42% say no.

Support for search engine and ISP blocking tracks with age: only 39% of 18- to 29-year-olds support requirements that search engines block sites, while 59% oppose them. Americans 65 and older, in contrast, support blocking by 59% to 31%. Other enforcement questions are less age sensitive. One possible explanation is that the young are less tolerant of blocking by services viewed as primary gateways to the Internet (such as ISPs) than of services perceived to be secondary or replaceable (Facebook).

When asked if the *government* should block access to sites that infringe, majority support for enforcement vanishes: 40% say yes; 56% no. When we replace the word “block” with the stronger “censor,” support drops further: 33% say yes; 64% say no. Americans do not like government involvement in these matters.

Should ISPs “censor” infringing content rather than “block”? Support drops 12%: 46% say yes; 49% say no.

What if efforts to block infringing files and links to infringing content also result in the blocking of some legal content (as has been the case with all large-scale

- **UK, 2010:** Wiggin’s 2010 survey asked if the government should “force the ISPs to police the Internet and block all illegal activity.” Only 12% said yes. Should the government “block access to websites that promote illegal activity”? Twenty-five percent said yes.

efforts to blacklist sites or filter content to date)? In this case, support for blocking infringing materials drops sharply: 57% oppose blocking; 36% support it.

Finally, should corporations or the government monitor people's Internet use "in order to prevent copyright infringement"? This is a privacy question. Sixty-nine percent said no; 27% responded yes or sometimes; 3% did not know.

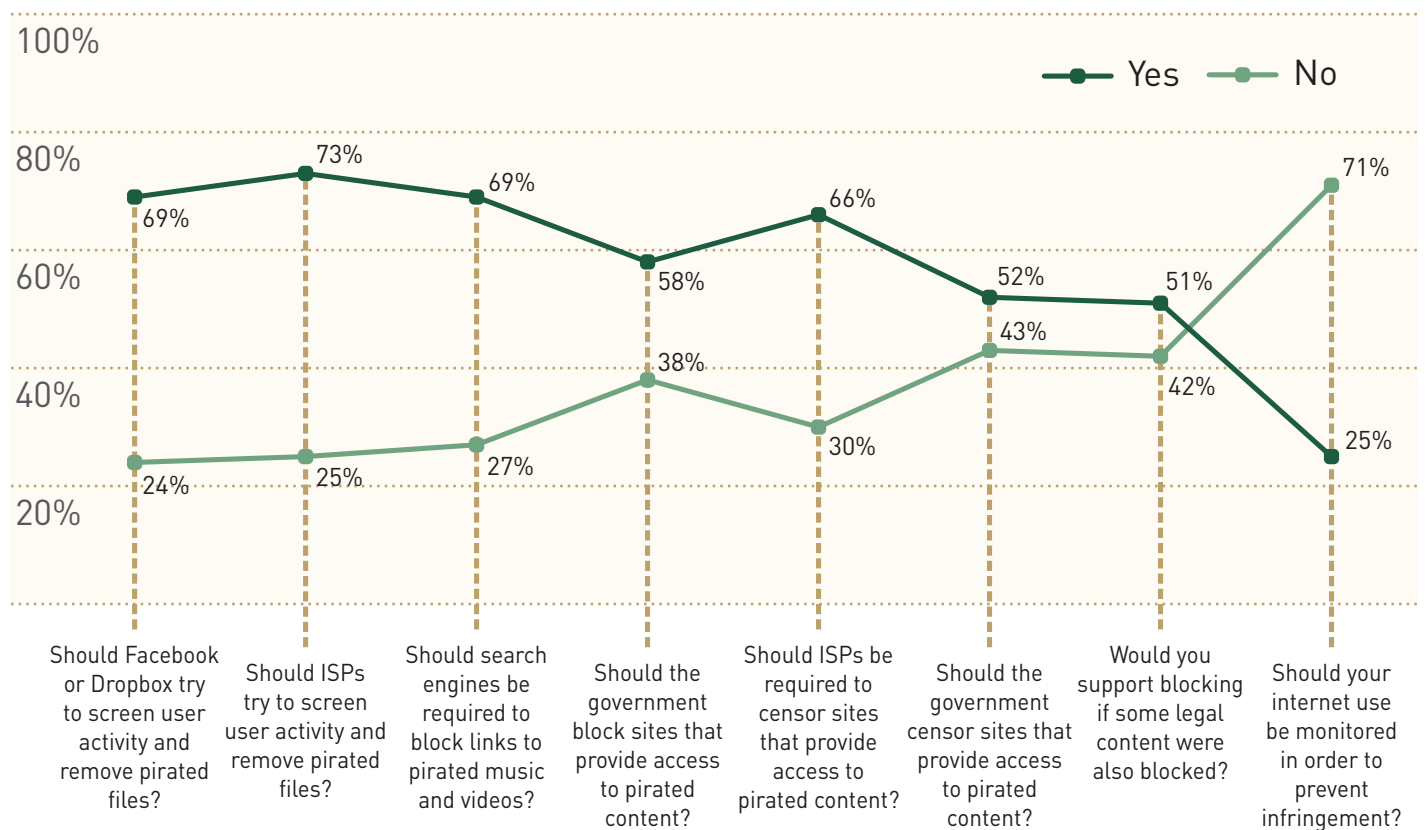
What can we conclude from these results?

**Solid majorities of American Internet users oppose copyright enforcement when it is perceived to intrude on personal rights and freedoms.** Sixty-nine percent oppose the monitoring of their Internet activity for enforcement purposes; 57% oppose blocking or filtering if those measures also block some legal content or activity. In our view, these are the value choices that now define the enforcement debate in the US.

## GERMAN RESULTS

### Blocking Copyright Infringement (Germany)

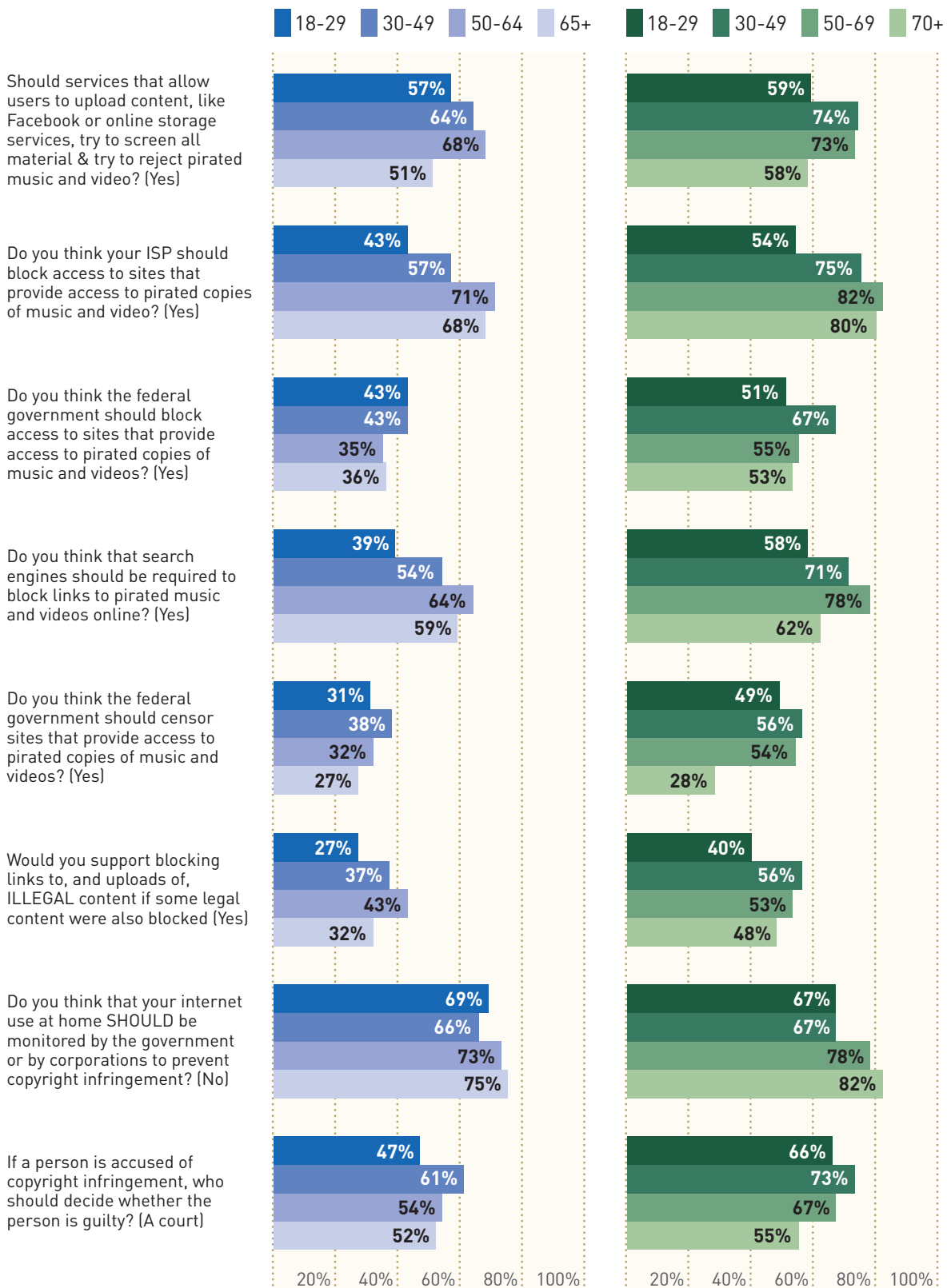
[AMONG INTERNET USERS]



German support for third-party blocking of infringing content runs much higher than in the US across the board—until such actions infringe on privacy. Our data suggest that privacy is the paramount online value for Germans, capable of overriding much stronger support for the enforcement of copyright laws. And copyright is not the only domain in which privacy takes priority. Lawsuits over Google Street View and opposition to social plug-ins on Facebook and other social media services also reflect a different ordering of values than in the US and a different view

## Blocking Copyright Infringement, By Age (US and Germany)

[AMONG INTERNET USERS]





of their applicability online. In both German and EU law, companies have less latitude to collect data and develop profiles of individuals without explicit consent than in the US. Our data suggest that large majorities support these data protection measures. Surveillance of citizens' online behavior—the clear direction of current enforcement proposals—faces a steep uphill battle.

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## AGE EFFECTS

What does the future of these issues look like? On most questions support for blocking correlates roughly with age. Among young adults (18–29) in the US, only the Facebook question, using the softest language, generates majority support for blocking (57%). Here the gap between young adults and the top group (50–64) is 11 percentage points.

Stronger measures are unpopular among younger respondents. This age effect is clearest in regard to “requirements” that ISPs and search engines block access to pirated materials. In the US both questions show large gaps in support between younger and older respondents (28 and 25 points, respectively). These age effects are similar in Germany, although support there has a higher floor. In Germany the gaps between young adults and the top age group (50–64) on ISP and search blocking are 28 and 20 points, respectively.

At the same time, 18- to 29-year-olds in both countries show slightly less suspicion of government in the enforcement role, slightly less concern for privacy, and less concern for due process through the courts. Call this the “Facebook effect,” reflecting greater comfort with lives published online through corporate intermediaries, and with the relatively invisible role of the state in this sphere.

Age effects are also visible at the other end of the spectrum, where enthusiasm for blocking falls off slightly among Americans older than 60. This result is consistent across several questions, but we have no particular explanation for it.

Among Germans, the oldest cohort (>70) shows sharper differences on questions related to enforcement and the role of the state. Compared to younger cohorts, support for private-sector blocking falls across the board among this group—in some cases sharply: 15% off the peak for Facebook and 16% for search engines. This postwar generation of Germans also consistently shows the lowest levels of trust in the state. Compared to the peak results, support for government action on enforcement falls 28% for “censorship” and 14% for “blocking.” Concern for privacy is highest in this group (14% above the bottom), and faith in the courts as a legitimate arbiter is the lowest (18% off peak).

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## INCOME EFFECTS

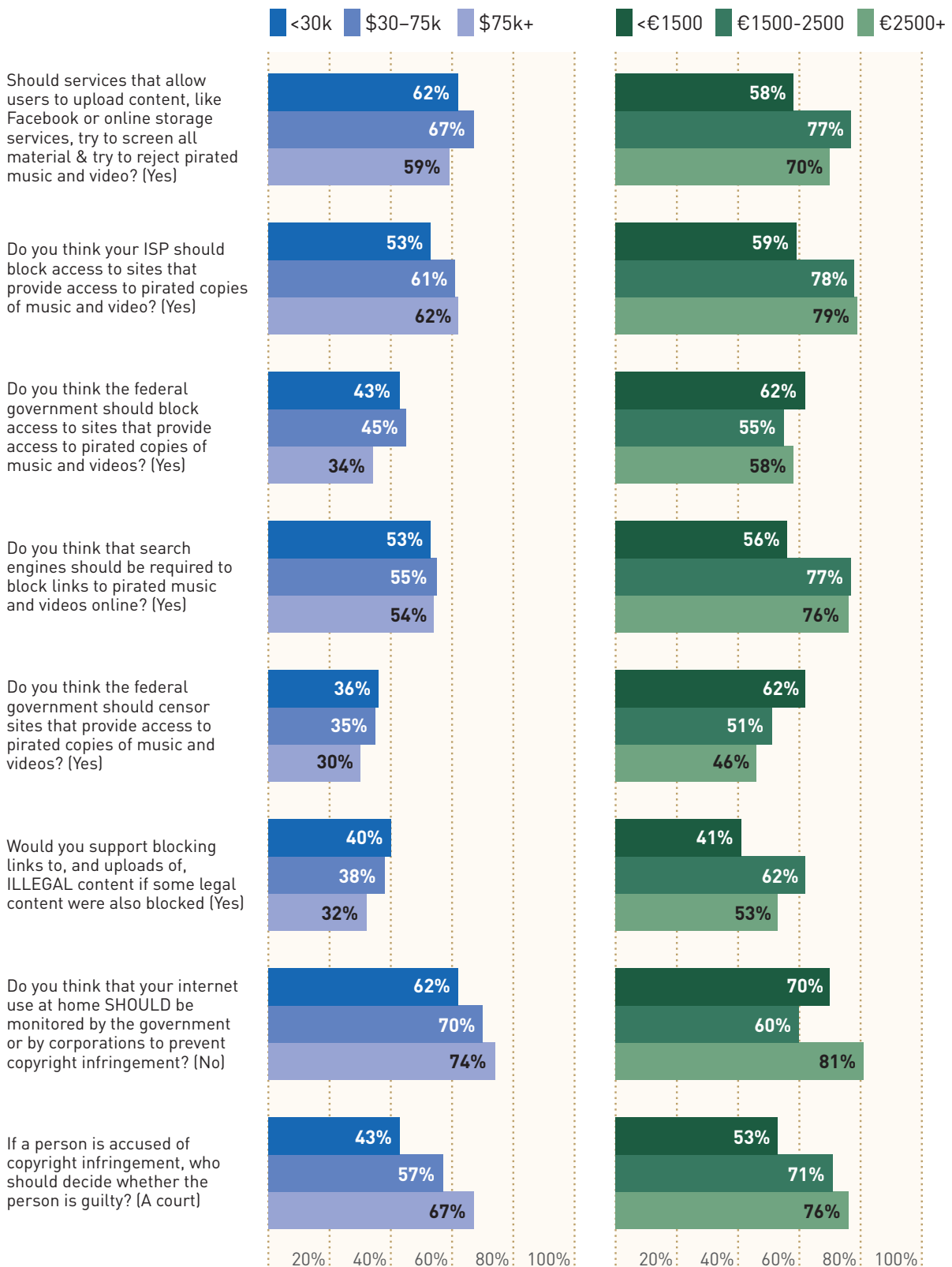
Our income analysis divides the population approximately into thirds, comprising low-, middle-, and high-income households. Attitudes toward online enforcement do show some rough correlation with these categories, though not to a degree that would allow for strong conclusions.

In Germany, lower-income Internet users tend to see the government as responsible for enforcement while high earners tend to place this responsibility on ISPs and search engines. Higher-income Germans also offer the strongest support for privacy and the role of courts in adjudicating infringement charges.

US respondents show less differentiation on private-sector blocking but similar distributions on the other issues. High earners provide the strongest support for due process, privacy, and speech rights and the lowest support for government involvement. With allowances for some noisy data, low earners in the US show moderately more support for strong online enforcement in general.

## Blocking Copyright Infringement, By Income (US and Germany)

[AMONG INTERNET USERS]



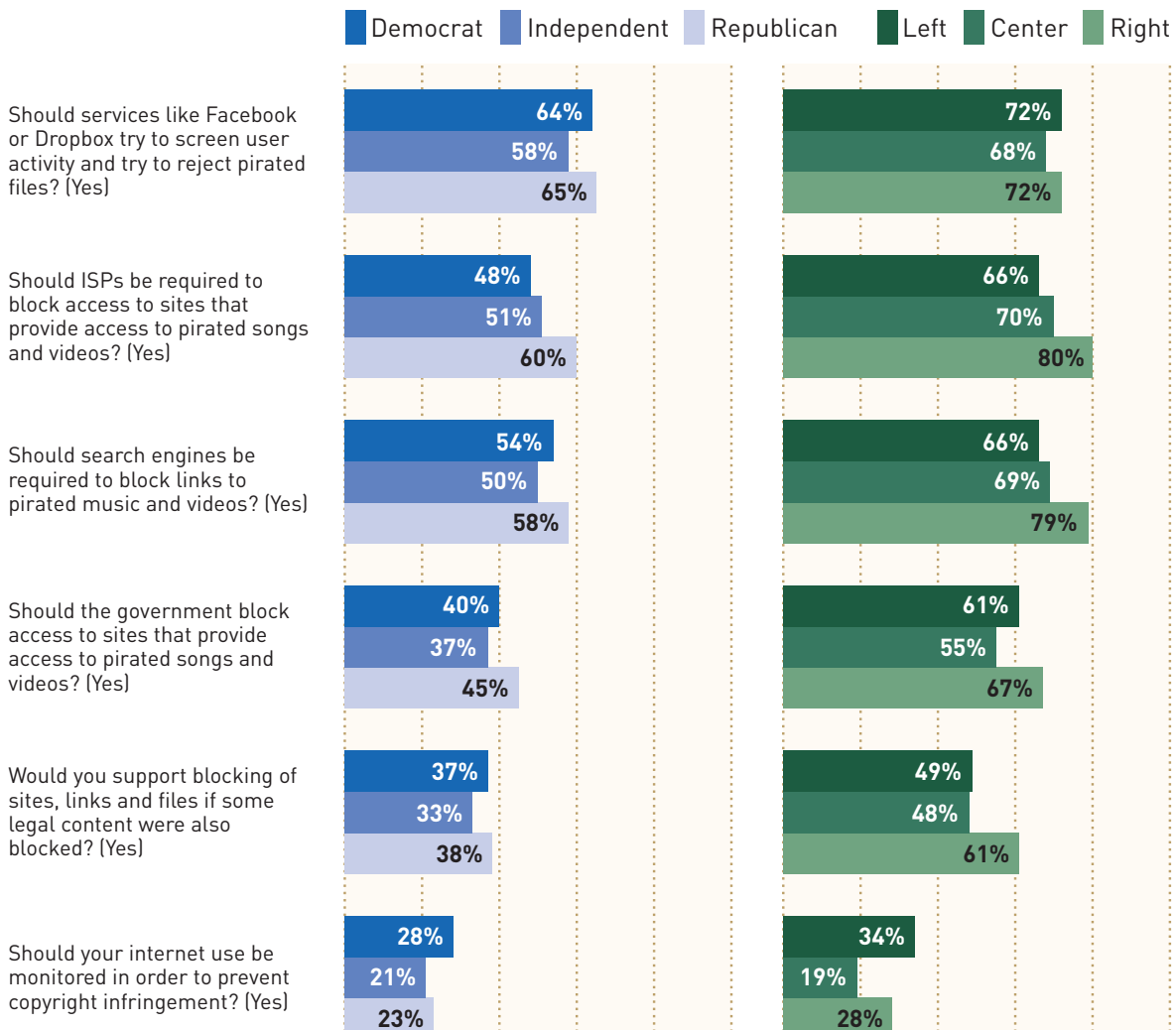
## BLOCKING BY POLITICS

Unlike age and income, political identification in the US plays only a small role in explaining differences in views on enforcement.

Self-identified Republicans are slightly more supportive of online enforcement measures than Democrats. The largest gap is 12%, on the question about ISP blocking. This result is almost certainly overdetermined by age differences: the young dislike ISP blocking and lean sharply Democratic. Among 18 to 29 year-olds, Obama beat Romney by 24%. Conversely, Republicans are slightly more likely than Democrats to rank privacy over enforcement.

Among independents, support for enforcement is generally slightly lower than for either party. The data strongly suggest that piracy and enforcement are first and foremost generational issues and secondarily income issues—not political issues.

### Blocking Copyright Infringement, By Politics (US and Germany) [AMONG INTERNET USERS]



In Germany political identification plays a larger role in differentiating attitudes toward enforcement, with conservatives generally showing more support for enforcement than those in the center or left.

Here respondents were asked to place themselves on a political spectrum of 0 to 6, with 0 representing the Far Left and 6 the Far Right. In Germany's multiparty political system, this is a common method for representing political ideology. In our survey 20% of respondents identified themselves as "Left"—as 0, 1, or 2 along the numerical spectrum; 43% selected 3 on the scale; 23% chose 4, 5, or 6—the political Right. Fourteen percent were unsure or refused to choose.

This distribution does not map neatly onto party identification. In 2011 the center-right parties—the allied Christian Democrats (CDU) and Christian Social Union (CSU)—together polled at 35% at the time of our survey (Infratest 2011). The traditional centrist party, the Free Democrats (FDP), polled at 4%. The center-left parties—the Social Democrats (SPD) and the Greens—polled at 28% and 20% respectively. To their left, the party known as 'the Left' polled at 7%.

For our survey this implies that the block of center-identified respondents vote across a range of center-left and center-right parties. Because centrists are also the largest block by a wide margin, centrist opinion plays a disproportionate role in defining public opinion more generally on these issues. This is the case in the US as well, where 37% of respondents described themselves as "independents."

Views on blocking and filtering are relatively consistent across center- and left-identified respondents, with differences generally falling within or near the margin of error. Conservative support for such measures runs higher, typically by around 10%. This is clearest in regard to the "safe harbor" questions about ISP and search engine responsibilities: strong safe harbor positions have become part of the platforms of the Center and Left parties. In contrast, there is no significant divergence between Left, Center, and Right on private-company screening of user activity.

The alignment between center- and left-identified respondents breaks down on the Internet monitoring question, with left-identified respondents showing considerably more tolerance for monitoring than centrists (and slightly more than conservatives). Traditional centrist concern with privacy appears to carry considerable weight on this issue, tracking the longer-term priorities of parties like the FDP. The issue of data retention by ISPs—necessary to any comprehensive policing of Internet use—has become particularly contentious. The current minister of justice, Sabine Leutheusser-Schnarrenberger (FDP), has refused to implement the EU Data Retention Directive (2006), resulting in legal action against Germany by the European Court of Law.

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## PRIVACY & COUNTERMEASURES

A major goal of SOPA and similar enforcement measures is to make Internet intermediaries like ISPs and social networking companies bear responsibility for infringement on their networks or services. The content industry vision of strong *ex ante* enforcement—prior filtering of infringing content—will require extensive monitoring of user activity. Content providers and industry groups already monitor public P2P networks and can identify the titles of files transferred and the IP addresses of participants in the exchange.

A variety of other actors, both public and private, monitor Internet activity and communications. And a variety of tools has been developed to shield such activity from surveillance, including Virtual Private Networks and routing systems that obscure IP addresses (such as TOR). The debate about copyright enforcement leads directly into this larger debate about surveillance, privacy, and anonymity.

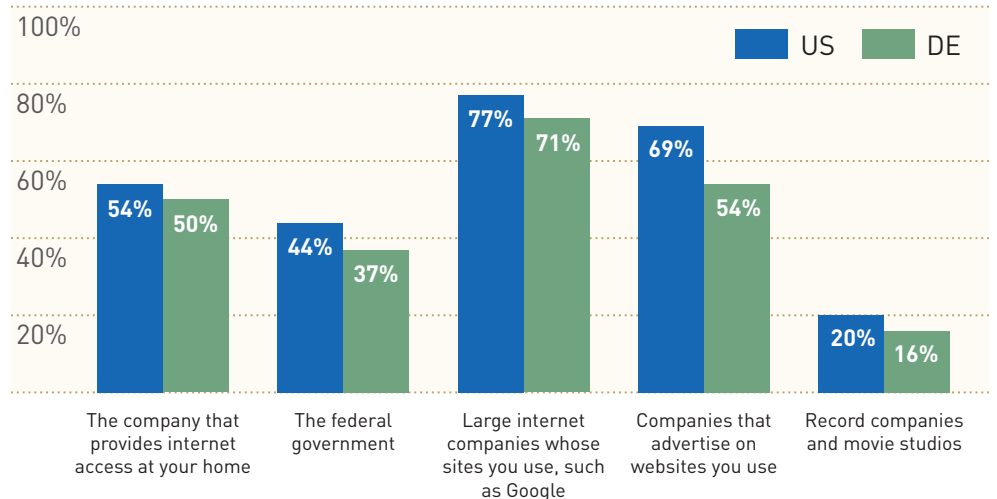
Germans are slightly less likely than Americans to believe that their Internet use is monitored by government or private companies. Yet they are more than twice as likely to take measures to protect their online privacy: 41% make special efforts to encrypt their Internet traffic, and 11% use tools to hide their IP addresses online (such as TOR or a VPN). That is more than twice the percentage of Americans who encrypt traffic (19%) or hide their IP addresses (5%). It is also significantly higher than the 4% of Germans who admit to using P2P services, suggesting a commitment to privacy that extends well beyond fear of copyright enforcement.

But for obvious reasons, file sharers are particularly sensitive to this issue and have become early adopters of anonymizing tools. In the US 16% of P2P file sharers take measures to hide their IP addresses (under 2% of the general population). In Germany 36% hide their IP addresses (1% of the population).

It seems entirely likely that the use of anonymizing tools will grow quickly in response to stronger surveillance and enforcement. Our study provides no data on this trajectory and there

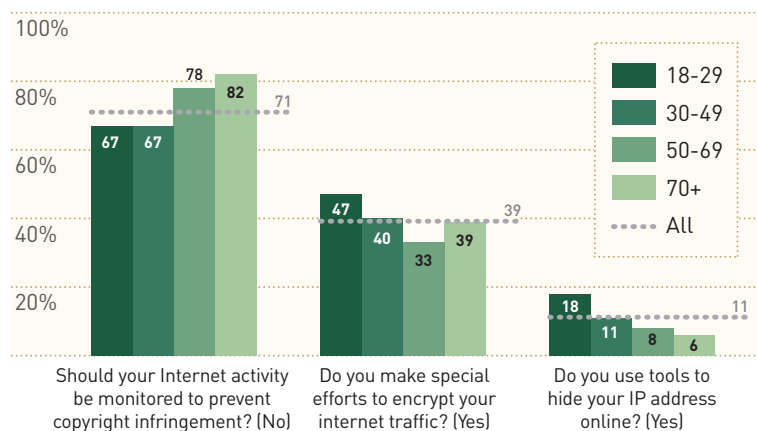
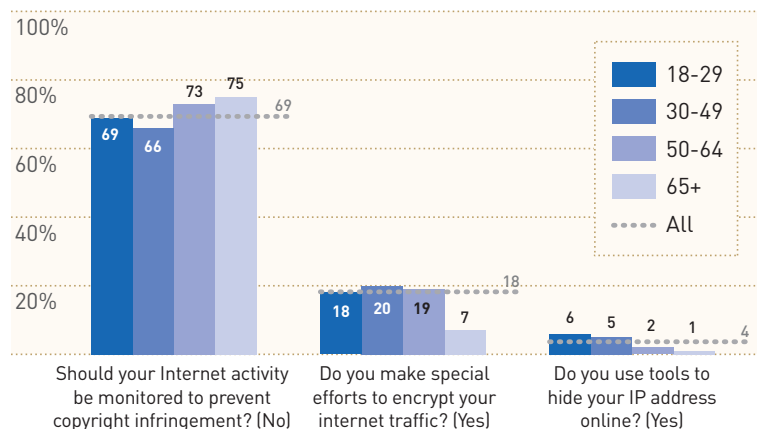
## Do You Think Your Internet Use Is Regularly Monitored By... (US and Germany)

[AMONG HOME INTERNET USERS]



## Privacy Countermeasures (US and Germany)

[AMONG INTERNET USERS]



has been very little investigation of the subject in general. An exception is the work of Larssen and Svensson in Sweden (2010; 2012), which has tracked VPN use since the passage of strict new enforcement legislation in 2009. In 2008 VPN use stood at 9% of Internet users and 12% of online file sharers. By 2012 it had grown to 15% and 24%, respectively.

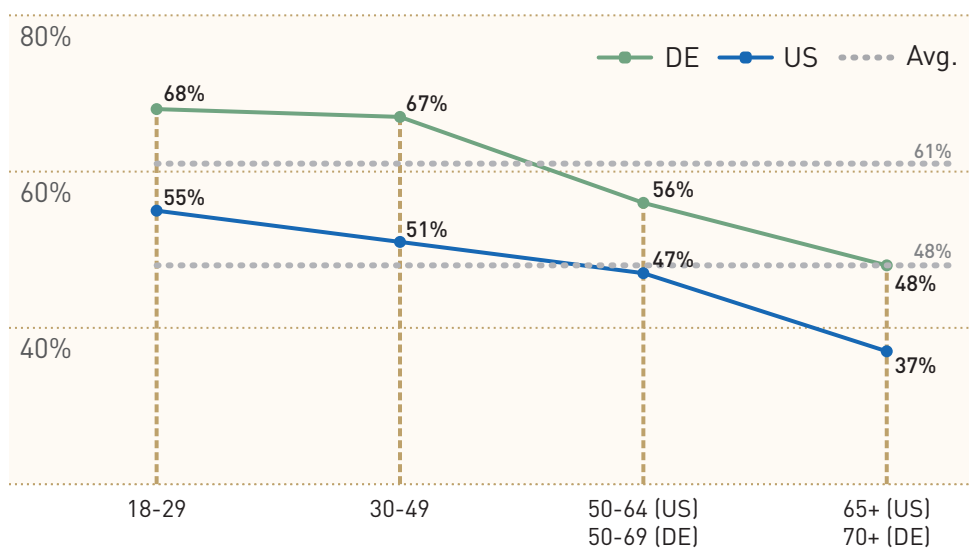
## LEGALIZING FILE SHARING

Penalization, censorship, and surveillance are not the only strategies on the table. There have also been proposals to legalize file sharing in exchange for a collectively managed levy paid to authors and artists. Although these proposals go by a variety of names,<sup>10</sup> we will refer to them as “sharing licenses.”

Since the emergence of file sharing as a mass practice with the launch of Napster in 1999, sharing license proposals have been advanced by legal scholars, music industry stakeholders, consumer organizations, collecting societies, Internet user associations, and several European political parties (Grassmuck 2012). These proposals differ in detail but all call for legal permission to upload and download copyright-protected works accompanied by a monthly levy on broadband Internet access to recompense rights holders. Our survey explored support for such a model and asked how much people would be willing to pay for it.

*“Some people have suggested that songs, TV shows and movies could be legally uploaded and downloaded as long as every broadband user in the country were willing to pay a relatively small monthly fee or levy to compensate authors and artists. Would you be in favor or would you oppose paying such a monthly fee for access to songs, TV shows and movies?”*

### Would You Pay A Small Broadband Fee To Compensate Creators If File Sharing Were Legalized? (US and Germany)



**10.** This approach has been discussed using names such as alternative compensation system, artistic freedom voucher, noncommercial use levy, *licence globale*, global Internet licensing agency, culture flat rate, global dissemination treaty, etc.

Forty-eight percent of Americans and 61% of Germans indicate support for the sharing license model. Support is higher among the young (US, 55%; DE, 68%) and among those who download music (US, 55%; DE, 70%) and videos (US, 49%; DE, 79%). It is higher still among P2P users: 60% in the US and 75% in Germany support the idea.

Support for the sharing license greatly exceeds the level of online file sharing reported in our survey. The discrepancy is most pronounced in Germany, where only 4% use P2P protocols and 29% have downloaded songs for free. In the US, where this marks the first time this question has been put to a representative panel, high support is surprising given the lack of history with copyright levies (with the exception of the largely inconsequential Audio Home Recording Act of 1992). On the other hand, sharing licenses were first proposed in the US and have played a recurring role in discussions among ISPs, music industry stakeholders, and public interest groups.

It is worth noting that penalizing and legalizing file sharing attract almost identical levels of support—and significant overlapping support. In both countries *over half of those who support penalization also support legalization*: 60% in Germany and 55% in the US. Clearly, some of the pro-penalization sentiment reflects support for law enforcement in general rather than opposition to file sharing in particular. It also seems likely that these issues lack sufficient definition in public discourse to generate consistent positions.

We asked how much those who favor a sharing license would be willing to pay.

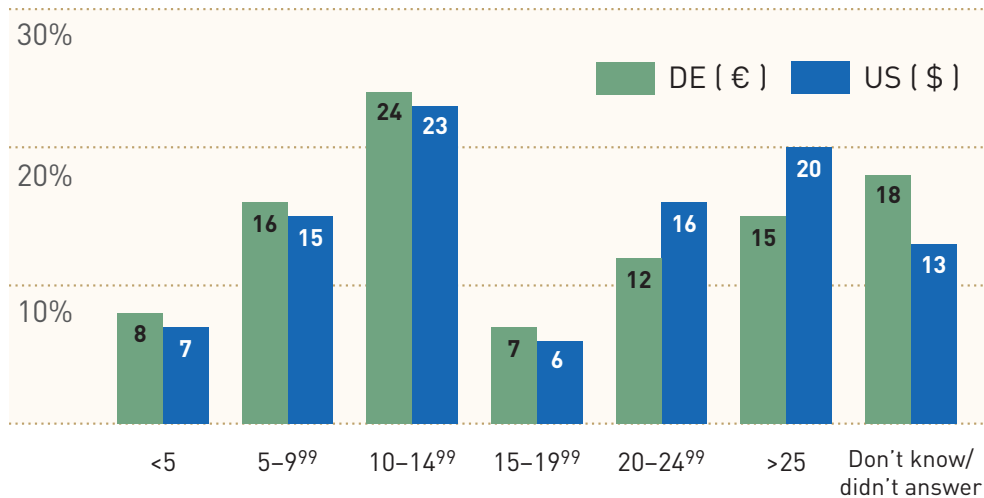
The most frequently cited figure in this debate dates back to Fisher (2004), who estimated that a \$5 monthly surcharge would cover what he estimated to be then-current music and film industry losses to file sharing. In our survey large groups in both countries indicated willingness pay over 15 dollars/euros for such an arrangement. The average proposed rates in the two countries were similar: \$17.53 in the US and €16.26 in Germany. Median rates close-

- **Germany, 2010:** *In a survey by Wöbken (2010), 43% of German “web actives” (regular Internet users) agreed that “a monthly flat fee should be levied on all Internet accounts in Germany to benefit the authors of music, books and films because their works are presumably being copied on the Internet against their will. Illegal file-sharing would thereby be legalized.”*
- **Sweden, 2009:** *STIM (2009) found that “almost nine out of ten music users on the Internet—86.2%—would be interested in paying for a voluntary subscription legally entitling them to file share music.” Those who had the largest digital music collections (more than 5,000 songs) registered even stronger approval (88%).*
- **Canada, 2009:** *Angus Reid (2009) solicited responses to the following statement: “Some people propose that a levy be placed on Internet Service Providers . . . to help compensate musicians and others in the music industry for lost revenue from people using free file sharing services.” Only 27% agreed that this was “a worthwhile initiative”; 73% called it “an unnecessary and/or inappropriate fee that would end up being passed along to consumers.”*
- **UK, 2008:** *Bahanovich and Collopy (2008) asked 14- to 24-year-olds about their interest in “a file-sharing service where you could download any music in the world to own and keep.” Seventy-four percent supported the idea, including 80% of illegal file sharers. In their 2009 follow-up survey, 85% of P2P downloaders said that they would be interested in paying for an “unlimited, all-you-can-eat music download service.” In their 2011 follow-up 74% offered support.*



## How Much Would You Be Willing To Pay Each Month To Have Access To All Songs, TV Shows & Movies? (US and Germany)

[BASED ON THOSE WHO FAVOR A MONTHLY LEVY]



- **UK, 2010:** In Wiggins' 2010 Digital Media Survey, 59% put the "reasonable fee" for unlimited access to music and movies at around £3.50 (\$5.00, €4.00); 25% declared willingness to pay up to £14.50 (\$20.94, €16.96).
- **Sweden, 2009:** A STIM (2009) survey found that 52% of respondents would consider paying between SEK 50 and 150 (\$6.59–\$19.77, €4.71–€14.14) per month. One in five people—19%—would consider paying between SEK 150 and 300 (US\$19.77–\$39.54, €14.14–€28.29).

ly tracked the averages: \$18.79 in the US and €16.43 in Germany.

As in other contexts, US and German P2P users reported a higher willingness to pay than their non-P2P-using peers. US P2P users proposed, on average, \$20.28; German P2P users, €19.53.

Our results also show two peaks in the distribution of rates: one around 10–15 dollars/euros and a smaller peak around 20–25 dollars/euros. This clustering is consistent in the US and Germany and is roughly confirmed by other studies. It seems likely that these clusters reflect prices for existing commercial services: music services like Spotify, which typically hover around 10 dollars/euros, and video services like Netflix, which are generally priced in the range of 15–20 dollars/euros for streaming and DVDs.

Our evidence suggests, then, that there is consider-

able public willingness to pay to share files—and pay more than has been suggested in many earlier proposals. These sums are not trivial. In the US a \$20 broadband fee, spread across the roughly 90 million current home subscriptions, would generate \$21.6 billion—nearly as much as the home video and recorded music markets combined. In Germany a €15 broadband fee would generate €5 billion per year, nearly equaling 2011's home video, recorded music, and pay TV revenues combined.

Sharing licenses raise a number of implementation challenges and face considerable industry opposition. In the US, legalized file sharing would compete with commercial distribution channels that generate far more revenue for intermediaries. Cable home video revenues in the US hit \$57 billion in 2011 with an average bill of \$86/month (not including Internet access, and for content further subsidized by advertising) (NPD 2012). Record companies and movie studios still talk about peak CD and DVD sales as natural revenue levels for those industries, recoverable through

stronger enforcement. With so much money at stake in the current system, the major US content stakeholders are a blocking constituency for any major copyright reform. By the same token, after SOPA and ACTA it is no longer clear that these stakeholders have the political power to effectively lock down the distribution channels or raise intermediary liability high enough to exclude disruptive competition. As a result, in the US, revenue and access models are far more likely to change as a result of business interventions than political ones.

In Germany the barriers to legal change may be lower. The history of private copy rules, the greater role of the public media sector, the mounting abuses of the cease-and-desist industry, the greater willingness of political actors to protect privacy on the Internet, and—not least—the smaller size of industry stakeholders relative to other interests have the potential to change the political calculus.

The main goal of a sharing license, it is worth reiterating, is not to preserve the revenue levels of the current intermediaries (though it could, in theory, do so), but to ensure funding for a cultural ecosystem that accommodates the basic functions of computers and the Internet while preserving freedom of expression and privacy. Our work suggests that large numbers of people in both countries (and a majority in Germany) are willing to explore such legal alternatives. As policy makers threaten to discount other rights to strengthen copyright protection, all options should be on the table.

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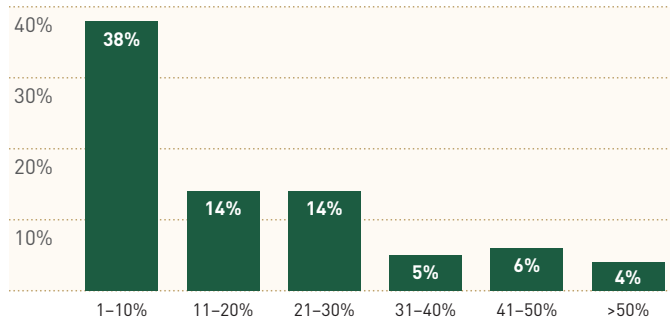
## FAIR PRICES & COMPENSATION

Because issues of artist compensation are at the heart of the piracy and enforcement debates, we asked a handful of questions about fair prices for songs and movies. For music we inquired about the “download to own” model characteristic of the iTunes and Amazon.com digital stores. For movies we asked about the fair price to watch a newly released movie at home via an on-demand cable or streaming service. We found no consensus or even clear pattern regarding fair prices in either country—despite what we assumed would be the guiding influence of actual prices. However, the average and median prices came relatively close to actual purchase prices for songs and rental prices for films. In the US

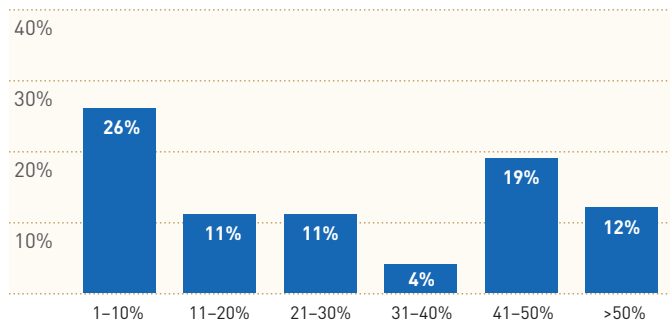
- The average fair price for one song was \$0.71, and the median price was \$0.76;
- The average fair price for watching a new movie was \$4.39, and the median was \$4.75;
- Among P2P users, the averages were \$0.72 and \$4.97.
- German respondents were asked about movies only:
- The average fair price for a new movie release was €3.96; the median price was €4.42.
- As in the US, German P2P users placed a slightly higher value, €4.62, on new movies.

## ARTIST COMPENSATION ON ITUNES

### What Percentage Of An iTunes Song Sale Do You Think Goes To The Artist? (Germany)



### What Percentage Of An iTunes Song Sale Do You Think Goes To The Artist? (US)



Given the prominence of iTunes in setting prices for music, we also asked what percentage of an iTunes song sale people think goes to artists. The actual answer is more complicated than it seems. iTunes and Amazon.com take 30% of the retail price—about \$0.30 on a \$0.99 single—and pay the balance to labels and collecting societies—not directly to artists. How much of that ends up with the song author, lyricist, and performing artist depends on contracts with the labels and collecting society rules. The artist royalty from “average” major label contracts is hard to determine, but most sources put the percentage around 15% of the label’s share, or roughly 9% of the retail song price. Reportedly, superstar artists can command a 20%–25% royalty.<sup>11</sup> For some indie labels and many of the new digital distribution services, artist royalties can range from 40% to 80%, or 28 to 56 cents on a dollar sale after Apple’s cut.

Germans did reasonably well on this question. A majority came within shooting distance of 9% (18% of respondents indicated that they did not know).

Americans did less well. Over 30% dramatically overestimated artist revenues; 36% came relatively close; 14% indicated that they did not know.

**11.** And megastars can apparently do even better. According to Billboard Magazine (Christman 2011), the Beatles’ long-delayed appearance on iTunes in 2011 was conditioned on recharacterizing downloads as a licensing arrangement rather than a retail sale, which triggers a more advantageous split for artists. As a result, the band is paid directly by iTunes, rather than by its label, EMI. This change has been sought by artists since the early days of digital sales and aligns with the ways Apple, Amazon, and other vendors characterize purchases as licenses to consumers. To date, the major labels have opposed the change.

# Children are the Future

**THE SHARP GENERATIONAL DIVIDE IN PRACTICES AND ATTITUDES** in our data begs an important question: what happens when today's "all digital" children become adults? Because phone surveys in the US and Germany require adult consent, we did not include respondents under the age of 18. A number of surveys have explored younger age groups, however. Most of these have found that youth have the highest rates of participation in file sharing and related practices.

**Germany, 2011:** *An MPFS (2011) survey found that 63% of 12- to 19-year-olds have copied files from family and friends; 56% have purchased CDs; 43% have recorded streaming music from the Internet; and 23% have downloaded files from file-sharing platforms.*

**Germany, 2011:** *GfK's 2011 survey found that 10- to 19-year-olds lead all age groups in hard-drive sharing, while 20- to 29-year-olds lead in music downloads.*

**France, 2009:** *A HADOPI (2009) survey found that 70% of French Internet users age 15–24 acknowledged "illicit consumption" online at some point, compared with 55% of those age 25–39 and 32% of those over 40.*

**Netherlands, 2009:** *Huygen et al. (2009) surveyed 1500 Dutch Internet users, including 15- to 24-year-olds. Of this group 66% had shared (i.e., downloaded without purchasing) music, films, or games in the previous year, compared with 47% those age 25–34 and 44% of respondents overall.*

**UK, 2009:** *Bahanovich and Collopy (2009) surveyed 1808 14- to 24-year-olds in the United Kingdom. Eighty-nine percent had copied a CD, 61% had used P2P services, and 57% had copied entire music collections from friends.*

**Poland, 2011:** *Filiciak et al. (2012) found that 61% of Poles age 15–24 participated in the "informal circulation of digital cultural content," including illicit downloading, copying, and sharing and watching illegal streams. In contrast, "the part of the population that is over 40 years old basically does not participate in this type of circulation."*

**UK, 2011:** *A Kantar Media survey (Kantar Media 2010) puts participation in "unauthorized downloading" among 12- to 15-year-olds at 33%. Among 16- to 24-year-olds, 27%.*

**UK, 2012:** *A Wiggin survey (2010) in the United Kingdom found that 16% of 20- to 24-year-olds "regularly" share music via P2P services. Among those over 45, 0% do.*

**Europe, 2009:** *Eurostat's Youth in Europe report (2009) found that 25% of German 16- to 24-year-olds claimed use of P2P services, compared to 16% of those age 25–34. This generational pattern proved consistent within Europe: Spain, 53% and 32%; France, 36% and 20%; UK, 33% and 20%; Italy, 36% and 22%; Poland, 37% and 20%.*

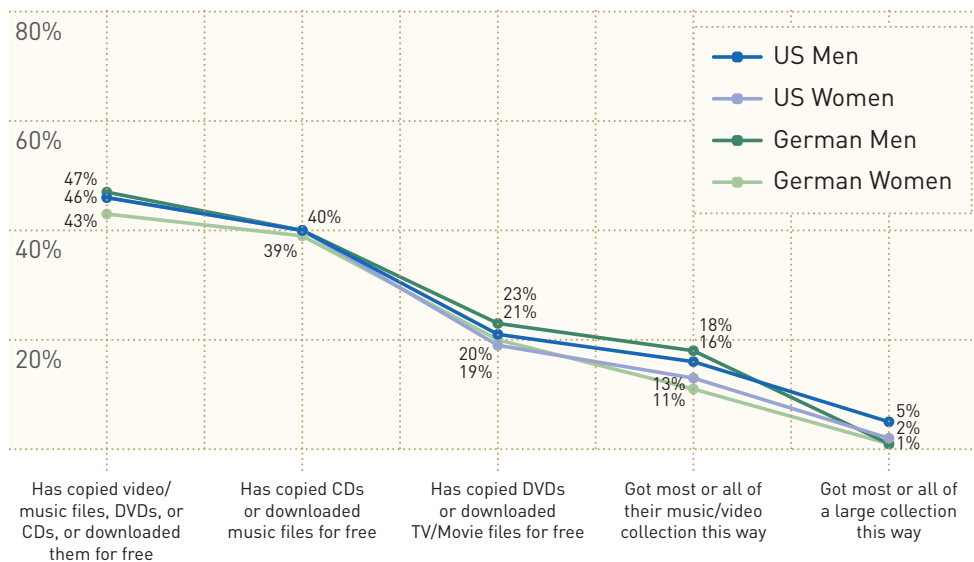
And this, ultimately, is what we mean by a copy culture: the emergence of a commonplace set of sharing practices that define how people relate to media. The lag time between political culture and youth culture on these issues is clear, understandable, and—we see every reason to think—temporary. The young share. If we want intellectual property laws that enjoy widespread respect in the digital era, either the laws, the business models, or both will have to accommodate that.

# Appendices

## GENDER DIFFERENCES

### Copy Culture (US and Germany, Men and Women)

[AMONG INTERNET USERS]

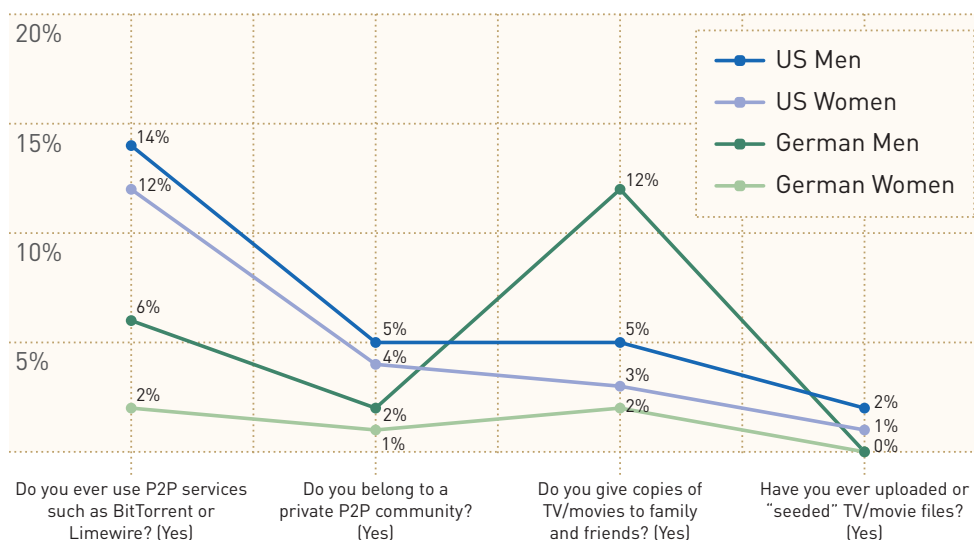


Gender differences in our broadest measures of participation in copy culture in the US and Germany are, for the most part, minimal—within the margin of error of the survey. Nor are there significant differences in attitudes toward copying and sharing.

Yet differences do emerge in some narrower practices—especially in Germany. Two percent of female Internet users there said they give copies of video files to family and friends, whereas 12% of male Internet users said they do so. Men are also three times as active in P2P networks.

### P2P and Sharing Practices (US and Germany, Men and Women)

[AMONG INTERNET USERS]



## RACE/ETHNICITY IN THE US

Race/ethnicity plays a relatively strong role in differentiating attitudes and practices toward copying and infringement in the US. (We did not track these categories in the German survey.) With respect to attitudes, tolerance of copying and sharing of all kinds is generally highest among Hispanics, with white and black respondents trailing and roughly equal within the margin of error.

With regard to copying and downloading practices, black and Hispanic respondents lead white respondents by significant and relatively consistent margins. Copy culture is more prevalent in black and Hispanic communities.

Our P2P file-sharing question generated the largest differences. Narrower practices (use of private trackers and initial seeding) produced no significant differences.

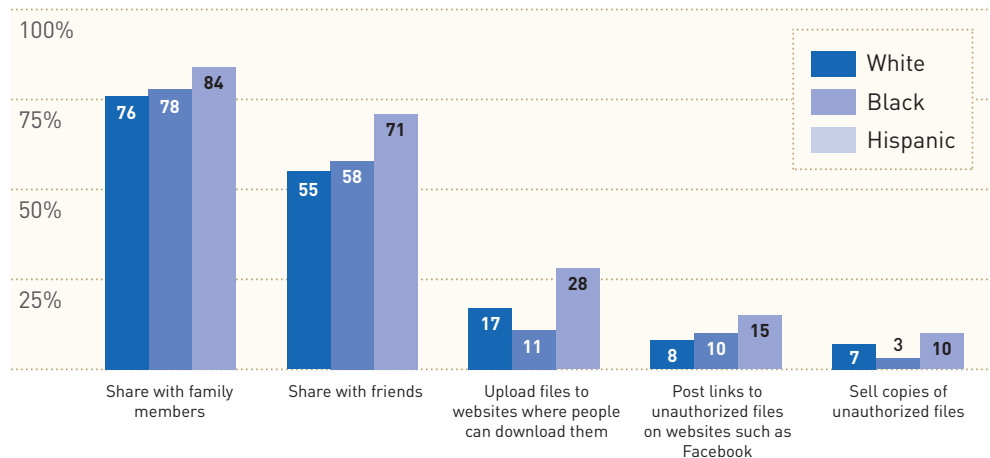
Nor did income prove to be a significant differentiator between the groups.

Age proved to be a significant differentiator, but here the differences emerged *among older respondents, not younger ones*.

Among 18- to 29-year-

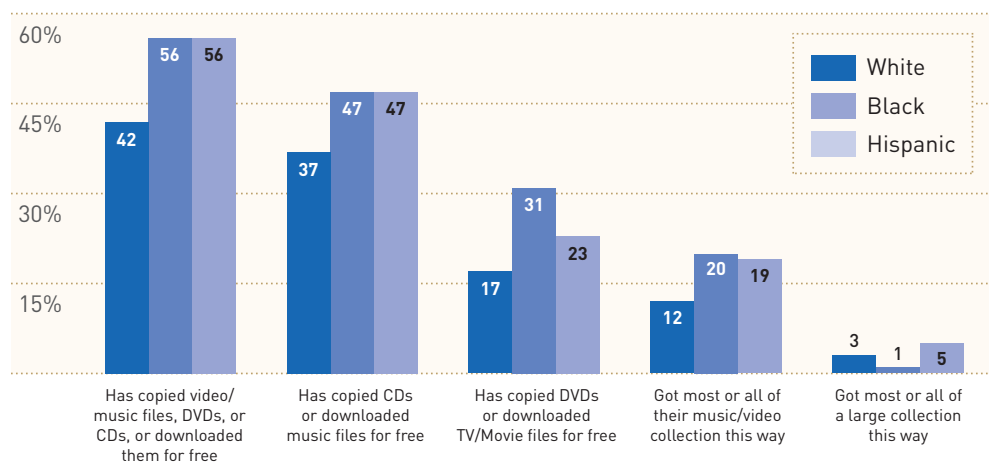
- **US, 2012:** *NPD's Annual Music Study (NPD 2012) found that 14% of Internet users had downloaded at least one song file illegally. Among black respondents, 20% had.*

### Music Files: Is It Reasonable To... (US, by Ethnicity/Race) [AMONG THOSE WHO HAVE MUSIC FILES]



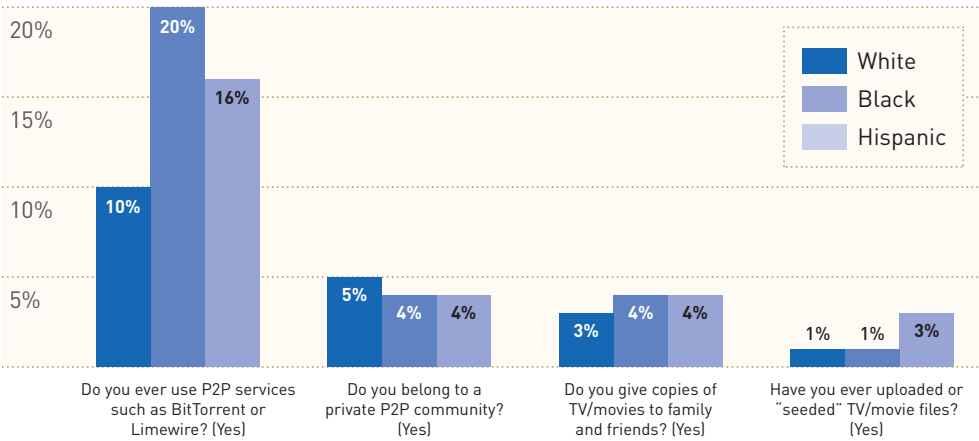
### Copy Culture (US, by Ethnicity/Race)

[AMONG INTERNET USERS]

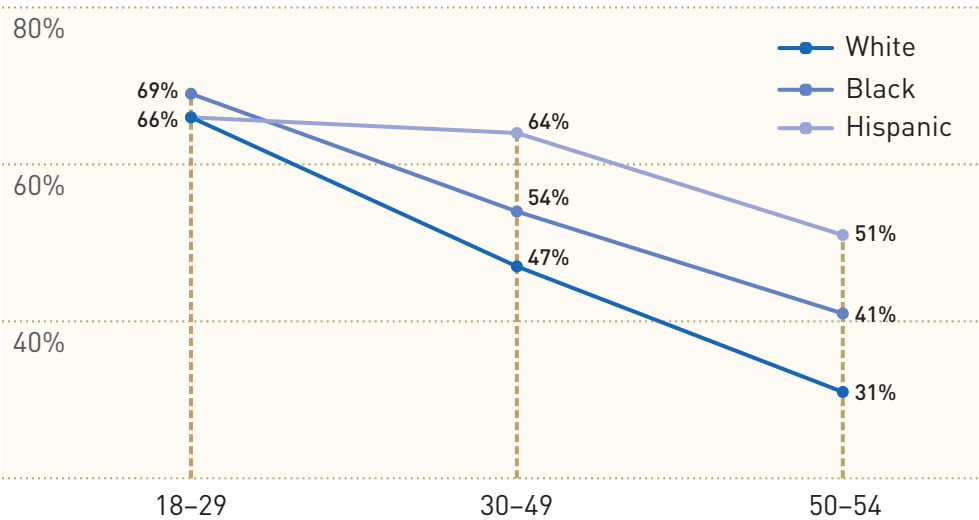


## P2P and Sharing Practices (US, by Ethnicity/Race)

[AMONG INTERNET USERS]



## Has Copied Music/Video Files, DVDs or CDs, or Has Downloaded Them For Free (US, by Ethnicity/Race) [AMONG INTERNET USERS]



olds, black, white, and Hispanic participation in copy culture is very similar—comprising 66%–69% of Internet users, according to our broadest copy culture metric. Black and Hispanic communities have higher overall levels of participation in copy culture because these practices are more prevalent among older members of the community. Our data does not provide much insight into this divergence, but we think it likely reflects the longer-term persistence of an informal media economy in these communities, rooted in issues of cost and lower availability of legal services (such as the scarcity of movie theatres in minority-dominated neighborhoods). Among Hispanics, these factors are likely strengthened by the importance of Spanish-language media, which has also had fewer legal means of distribution.



## END-USER LICENSES

For many digital goods and services, copyright is subordinated to contracts, such as the now ubiquitous click-through or end-user license agreements (EULAs) used for software. In the US EULAs have generally been found to supersede copyright law and—in particular—allow companies to dictate terms of use that reject the “balance” between rights holders and users present in copyright. In Germany the permissible scope of EULAs is highly contested, and EULAs have been repeatedly invalidated for infringing on guaranteed rights in copyright law and other civil provisions (Kreutzer, 2006).

The well-known opacity of EULAs is a particular problem in this regard. Can contracts be legitimate when they are unintelligible and rarely read? Common sense would say no. And so we asked two questions:

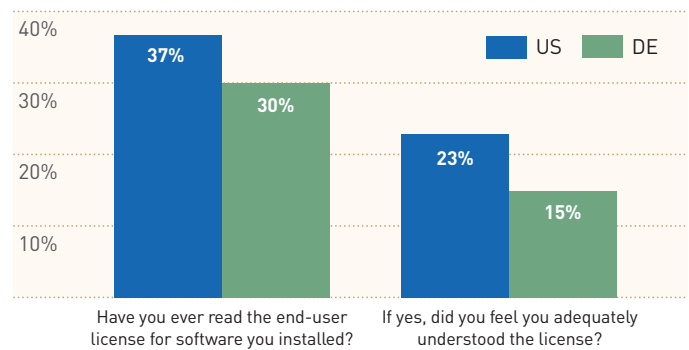
**(1) Have you ever read an end-user license?**

Thirty-seven percent of Americans and 30% of Germans said yes.

**(2) Did you feel you adequately understood the end-user license?** Twenty-three percent of Americans and 15% of Germans said yes

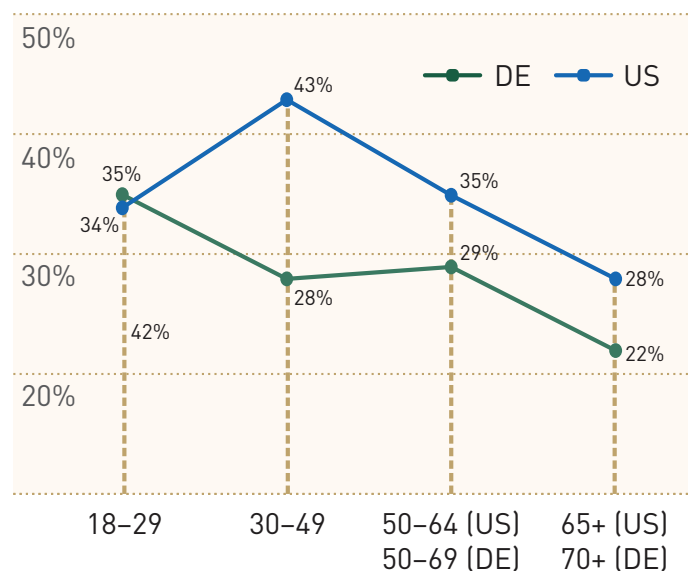
Who reads EULAs? In the US, there are two main factors: the likelihood of reading a EULA increases with age, but the likelihood of installing software (and therefore encountering a EULA) drops with age. 80% of those under 30 have installed software. Among those over 64, only 41% have. So in terms of raw numbers, the middle-aged are the most frequent readers. In Germany, the same trends apply but middle-aged Germans appear comparatively complacent about their EULAs—perhaps because the cases that have attracted attention in Germany have involved video games.

### Who Reads EULAs? (US and Germany)



### Who Reads EULAs? (US and Germany)

[AMONG ALL ADULTS, BY AGE]



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## AUTHORS

**Joe Karaganis** is Vice President at The American Assembly at Columbia University. His work focuses on digital convergence and cultural production, and has included research on broadband adoption, data policy, and intellectual property law. Most recently, he is the editor of *Media Piracy in Emerging Economies* (2011). Prior to joining the American Assembly, Karaganis spent 10 years as a program director at the Social Science Research Council.

**Lennart Renkema** is a self-employed researcher and writer with a particular interest in disruptive innovation and online communities. Previously he has advised media companies on how to approach the opportunities and challenges in the digital age. He holds a PhD in social and behavioral sciences.

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