Briefing

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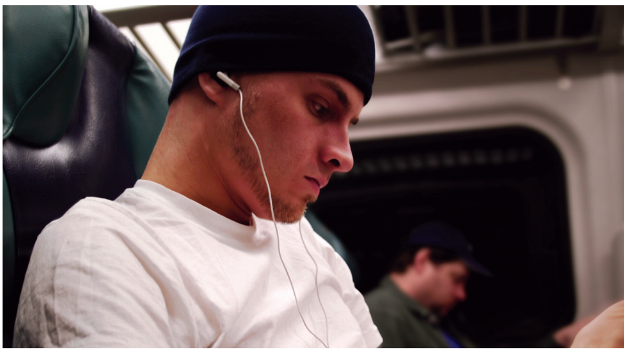

The Impact of E.U. Internet Copyright Regulations on Early-Stage Investment
A Quantitative Study

PREFACE

The world has benefited enormously from an impressive level of growth and innovation over the past several decades. Since the beginning of the Internet age, a mere two decades ago, society has grown to expect accelerating growth in technology and innovation. Thanks in part to this rapid rate of change, lawmakers have relied heavily on self-regulation rather than government enforcement and compliance as a means of controlling the growth of the Internet. As we move into a new era of Internet growth fueled by new and emerging technologies—including widespread broadband access, cloud computing, social media, and mobile connectivity—it will be increasingly important to understand the potential effects of regulatory changes.

One area of Internet regulation currently being debated is digital copyright. To keep up with new methods of distributing content, regulators are now evaluating several potential changes to current copyright law that could have a large impact not only on content providers and distributors but also on how users themselves interact with content. Our research goal: to understand how future regulatory changes might affect the level of early-stage investment in young companies acting as intermediaries for digital content.

New startup companies have long been an important driver of innovation and economic growth in Europe, and few of them would have grown to maturity without the early-stage financing that allowed them to bring their ideas to the marketplace. It was our research hypothesis that this financing, which comes primarily from angel investors and venture capitalists, might be greatly affected by the regulatory environment; our study looks to test empirically how particular copyright regulations might affect this. Though there are many players who may be affected by potential copyright regulations, including the holders of copyrights themselves, we focused on digital content intermediaries, given their importance in the value chain and their potential as engines of innovation in the Internet content space.

To understand how early-stage investors might react to new regulations, we took a direct approach, one that to our knowledge has never been tried in a systematic way—we asked them. We surveyed 54 European angel investors and interviewed more than 20 prominent venture capitalists in the U.S. and 10 from Europe to determine their sentiments regarding a variety of potential regulatory changes. It is our hope that this study will leave readers with a clear sense of how changes to the current copyright regulatory regime might affect early-stage investing.

The impetus for this paper arose during the creation of our recent report about copyright law in the United States. In that paper, we examined various changes in copyright regulations and their effects on angel and venture capitalist investment in technology companies. In preparing the report, we spoke with a large number of angel and venture capital investors, who provided us with many critical insights. The U.S. report is titled "The Impact of U.S. Internet Copyright Regulations on Early-Stage Investment: A Quantitative Study."

Broad interest in the first paper and the relevance of the issues to the E.U. prompted a further question: How would reactions among European investors to changes in copyright regulations compare with those of their cohorts in the United States? The results were interesting. This report is one of two on European investment attitudes toward Internet companies. The other report focuses on privacy regulations and is titled "The Impact of E.U. Internet Privacy Regulations on Early-Stage Investment: A Quantitative Study."

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Greylock Partners	Intel Capital
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Rustic Canyon Partners	Startup Bootcamp
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This report was financed by Google Inc. and independently researched and written by Booz & Company. In creating it, we drew on expertise from Booz & Company's consumer, media, and technology practice, from our own primary research, and from academic and public research and publicly available information.

EXECUTIVE SUMMARY

Over the past 20 years, the world has been transformed by the emergence and meteoric growth of the Internet. It is estimated that the Internet has represented 3.4 percent of global gross domestic product (GDP) and 21 percent of GDP growth in mature countries over the past five years. As the Internet continues to grow, however, further investment will be needed to support the creation of new technologies in social media, mobility, cloud computing, and the streaming of video and audio content.

The companies at the heart of these innovations depend heavily on early-stage investment from angel investors and venture capitalists (VCs) alike. These two critical groups invest an estimated €3.8 billion into early-stage companies in Europe annually, while also providing mentoring advice to entrepreneurs.

The ease with which digital content of all kinds—news, music, videos, even entire books—can be copied and redistributed has raised significant issues. Important voices in the debate have been those of both the E.U. itself and the governments of its member countries, all of which have played a critical role in setting copyright legislation and jurisprudence in tandem with the technological advances of the Internet.

Leading lawyers have told us in interviews that the copyright issues may move in one (or more) of four potential directions:

1. *Decreasing the cost and complexity of obtaining licenses. An integral function of copyright law is the granting of licenses. Changing this process could have important consequences for rights holders and content distributors alike.*

2. *Reducing legal ambiguity concerning the likelihood of lawsuits and the size of damages in the event of liability. Some aspects of copyright law are as young as the Internet itself—and thus, many argue, still very ambiguous.*

3. *More actively prosecuting pirates. A common method of deterring piracy has been direct prosecution of pirates themselves. Despite many steps in this direction in the past, the potential for expanding these efforts remains.*

4. *Holding websites and content intermediaries responsible for copyright infringement. Proposed legislation would hold the intermediaries that redistribute content liable for the activity of their users. These companies would be required to screen and filter content and could be held responsible for any ensuing copyright infringement.*

Any of these regulations have the potential to affect a wide range of Internet-based companies—most notably, the digital content intermediaries (DCIs) that provide search, hosting, and distribution services for digital content. DCIs generate value for content producers by reducing the costs of distribution and allowing many artists to monetize the content they create more easily. And they provide consumers with access to a greater variety and volume of content, as well as an improved consumption experience.

We undertook this empirical, quantitative study to understand better how potential changes to copyright regulations might affect angel and venture capital investment in

DCIs. In the course of preparing the study, we surveyed 54 European angel investors and interviewed more than 20 prominent U.S. venture capitalists and 10 venture capitalists in Europe. In sum, our principal findings support the following points:

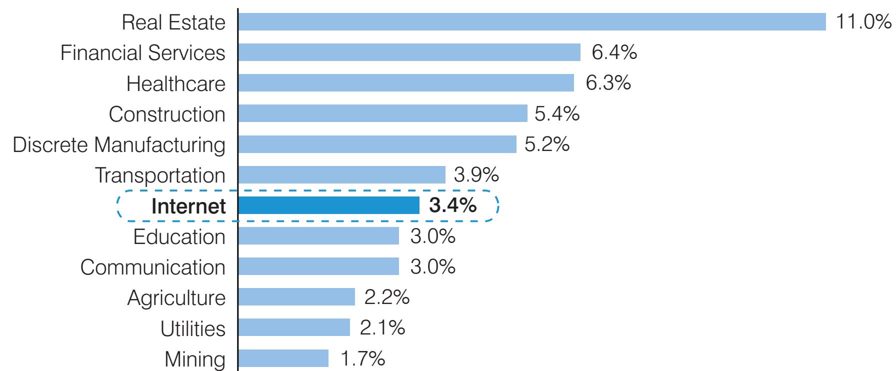
- *Increasing liability for content providers would have a greater negative impact on early-stage investment than would a weak economy and an increased competitive environment combined.*
- *Holding DCIs liable for the content uploaded by users would have a significantly negative effect on investment in this space, reducing the pool of interested angel investors by 68 percent.*
- *Regulations making it easier to prosecute users for copyright violations would have a negative effect on investment in this space, reducing the pool of interested angel investors by 49 percent.*
- *A large majority of angels support increased clarity in copyright law, especially if it would decrease the degree of ambiguity surrounding the probability of facing a lawsuit in cases of copyright infringement, as well as the size of damages in the event of liability. Fully 100 percent report being uncomfortable investing in business models that operate under an ambiguous regulatory framework.*

In light of these results, lawmakers might wish to consider the angel and venture capital community when contemplating new copyright regulations.

Chapter 1
BACKGROUND ON INTERNET GROWTH

The creation of the global Internet infrastructure and the vast array of companies offering products and services that leverage its connectivity has transformed our world over the past two decades. In this short period of time, the Internet has grown from a resource for a handful of scientists and researchers to an essential medium for more than 2 billion users worldwide, dramatically changing the way information is collected, distributed, and used. Its rapid growth has also generated enormous economic value for the global economy; indeed, it is estimated that the Internet contributes as much to worldwide GDP as many other, far more mature sectors of the economy, including agriculture, utilities, and mining (*see Exhibit 1*). Estimates place the Internet economy in Europe alone at 4.1 percent of GDP in 2010.[1]

Exhibit 1
Global Internet Value as a Sector, Compared with Other Sectors



Source: Organisation for Economic Co-operation and Development; McKinsey Global Institute

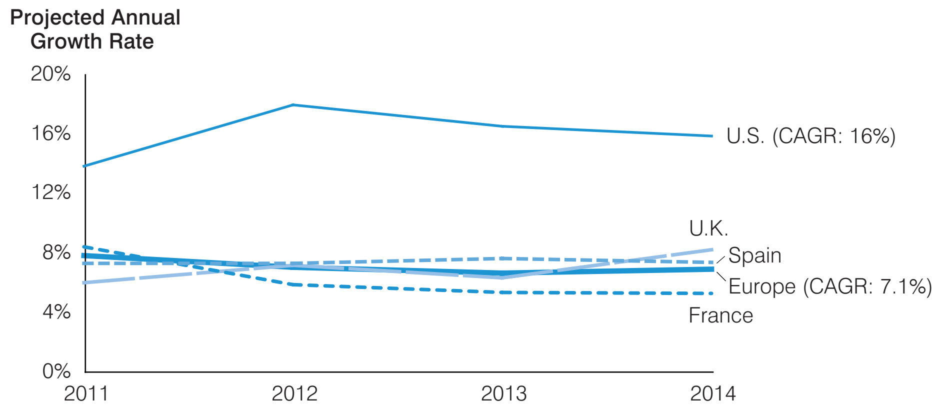
As the Internet continues to evolve, and its influence increases, further investment will be needed to support that growth. Fast-emerging technologies and platforms such as social media, the cloud, and mobile access—most of which barely existed as recently as a decade ago—are now expected to drive the Internet's future growth. Revenue from the Internet industry in Europe is expected to grow at a 7.1 percent compound annual growth rate

(CAGR) over the next three years (*see Exhibit 2*),[2] as Internet usage reaches three out of every four people by 2016 (*see Exhibit 3*).

As the Internet grows and its impact on society increases, regulation pressures will likely increase as well. The manner in which governments handle these issues will have a lasting impact on how the Internet evolves.

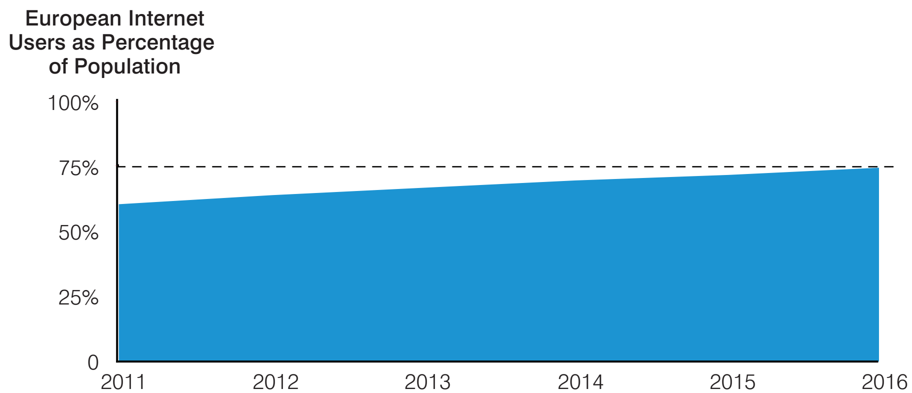
One key area in which policies and regulations are likely to have a significant effect is at the intersection of the Internet and early-stage capital investment. The next phase of the Internet's development will require the contributions of many parties as new technologies are developed and launched and as new products and services are introduced. As in the past, a major factor will be the new and emerging companies that fuel innovation—and which typically require startup and early-stage capital to survive. The majority of this capital will come from the private markets, particularly from early-stage investors—the angel investors and venture capital firms with the skills to support the growth of new businesses and the willingness to risk the money needed to help them grow.

Exhibit 2
Internet Industry Projected Revenue Growth Rates, 2011–14



Source: "The European Internet Industry and Market," FI3P, June 2011; IDC Worldwide New Media Market Model, 1H11, August 2011

Exhibit 3
Projected Internet Usage in Europe, 2011–16



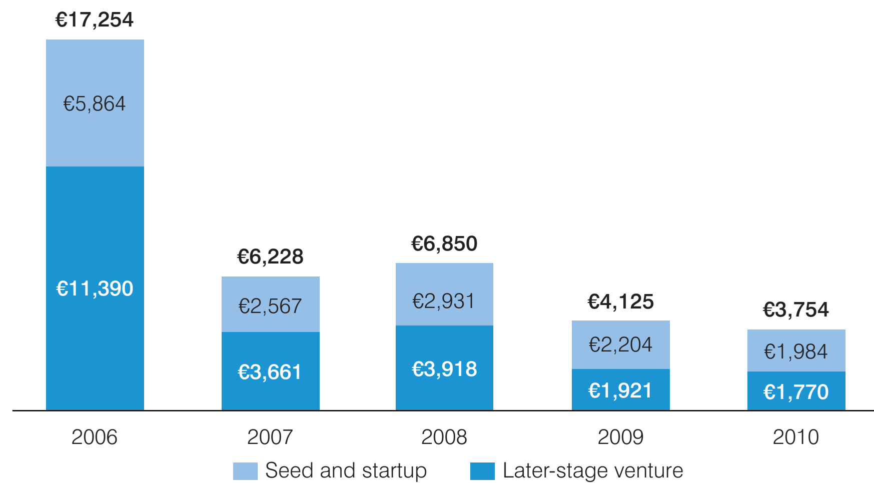
Source: "The European Internet Industry and Market," FI3P, June 2011

Chapter 2
ANGELS AND VENTURE CAPITALISTS

To determine the impact of the regulatory environment, we have focused our study on understanding how the early-stage investment community—particularly angel investors and VCs—might react to potential regulatory changes. Angel investors and VCs play a critical role in the capital markets, providing early financing to new companies that otherwise would find it difficult to secure funding.[3] Taken together, angel investors and VCs are the primary source of this entrepreneurial funding, investing nearly €3.8 billion in Europe in 2010 alone (*see Exhibit 4*).[4] In fact, angels and VCs were early investors in many companies that are now household names, including the following global companies: Apple, Cisco, Dell, eBay, Facebook, Google, Intel, and Microsoft.[5]

The high-tech sector continues to be a major investment focus for angels and VCs in Europe, accounting for 47 percent of early-stage investment in 2010. That year, seed and startup investors funded 2,078 new ventures in Europe, for a total of nearly €2 billion in invested

Exhibit 4
Early-Stage Investment in Europe, 2006–10



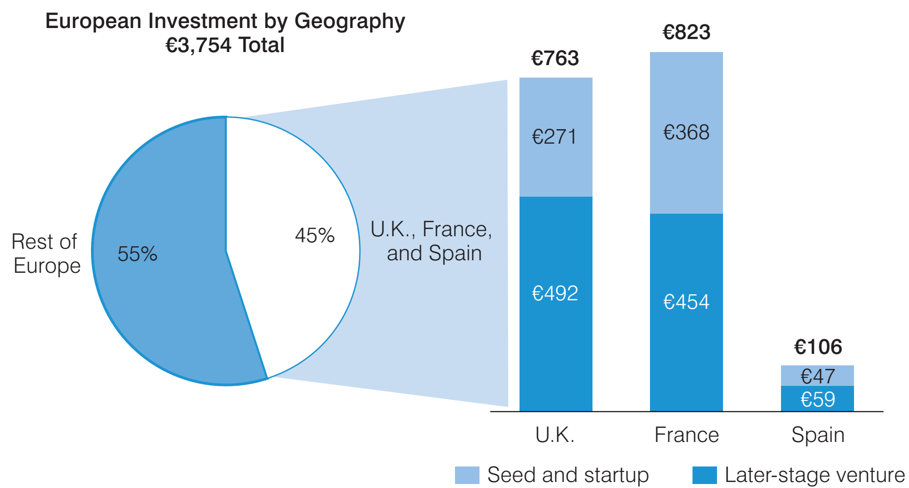
Note: In millions of euros. Numbers may not add up due to rounding.
Source: European Venture Capital Association Yearbook 2011

capital, more than the total amount invested in later-stage ventures.[6] The U.K., France, and Spain contributed 45 percent of Europe's total investments in early-stage companies, with the U.K. and France investing substantially more than Spain (*see Exhibit 5*).

In comparison to 2009, these countries' 2010 early-stage investments moved in different directions. European investment as a whole declined in the range of 7 to 10 percent. The U.K. saw a significant drop in seed and startup funding and almost no change in later-stage venture funding, while France and Spain had slight increases in seed and startup investment and major decreases in later-stage ventures (*see Exhibit 6*).

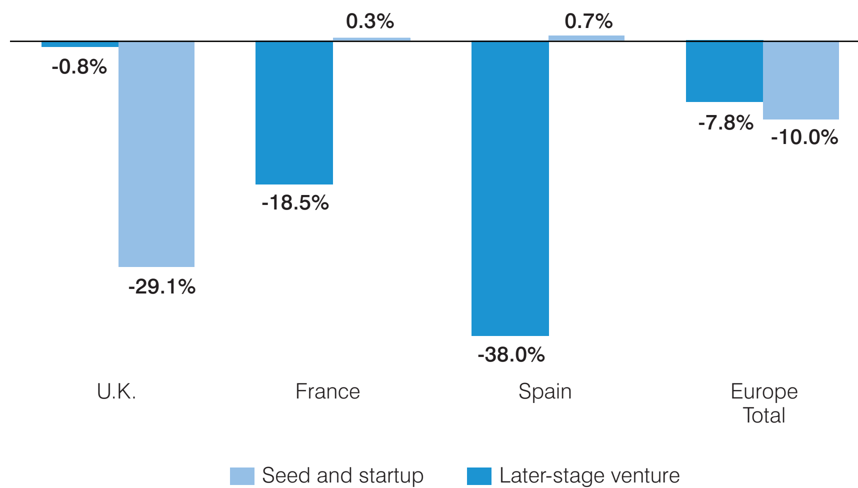
In addition to injecting capital, angel investors often play a hands-on role in the deals they invest in by providing entrepreneurs with mentoring, business advice, and contacts. It has been suggested that these "softer" benefits of angel investing can have as great an impact on the success of a startup as the funding itself.[7] Their many contributions, both financial and managerial, make angel investors a critical part of the entrepreneurial finance landscape.

Exhibit 5
Early-Stage Investment in Europe, by Region, 2010



Note: In millions of euros. Numbers may not add up due to rounding.
Source: European Venture Capital Association Yearbook 2011

Exhibit 6
Change in Investment Among European Countries, 2009–10



Source: European Venture Capital Association Yearbook 2011

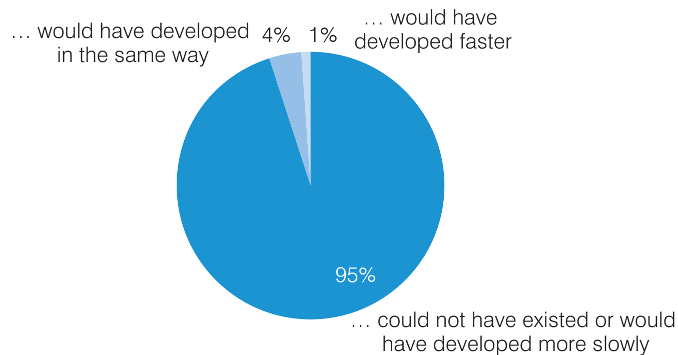
VCs also play a critical role in providing capital for entrepreneurs. They typically invest during the later stages of a startup's growth, and often make much larger individual investments. And they usually play a similarly important hands-on role in the companies in which they invest.[8] Indeed, European companies report positive results from venture capital. Fully 95 percent of European companies that received venture capital investment reported that, without the investment, they could not have existed or would have developed more slowly (*see Exhibit 7*). Similarly, almost 60 percent indicated that they would not still exist without the contribution of venture capital. In addition, an average of 46 jobs were created by companies after receiving an infusion of venture capital, and there were an estimated 1,046 later-stage venture infusions in Europe in 2010.[9]

Given the key role that angels and VCs play, not only in funding new companies but also in working with them to promote their success, their continued willingness to invest is critical to the future creation and growth of new companies. In producing this Booz & Company follow-on study, we surveyed 54 angels to better understand how potential regulatory changes might affect their investment behavior and interviewed 10 prominent European venture capitalists to gain a more qualitative perspective on their views.

In this study, we have chosen to concentrate on digital copyright laws and regulations. Digital copyright is a timely issue, given recent court rulings and contemplated legislation, and it is particularly relevant to technology companies—an important area of focus for early-stage investors.

Exhibit 7
Venture Capital Influence on Growth of New Companies

95% OF COMPANIES REPORT THAT, WITHOUT VENTURE CAPITAL, THEY COULD NOT HAVE EXISTED OR WOULD HAVE DEVELOPED MORE SLOWLY



Source: "Survey of the Economic and Social Impact of Venture Capital in Europe," European Private Equity & Venture Capital Association, June 2002

Chapter 3
THE CURRENT AND FUTURE COPYRIGHT LANDSCAPE

The E.U. Copyright Directive of 2001 extends to the E.U. implementation of the World International Property Organization (WIPO) Copyright Treaty—a 1996 agreement regarding current definitions of copyright law among member states of the World Intellectual Property Association. The directive defines and harmonizes aspects of copyright protection, as well as limitations on copyright that permit certain legitimate reuses of copyrighted content, such as copying for the purposes of quotation in a critique or review. In addition, the Electronic Commerce Directive of 2000 aligns limitations on liability for certain online service providers.

However, member states have the freedom to adopt some aspects of the directives and reject others. Some countries have implemented exceptions to the Copyright Directive of 2001, and others have not. For example, the U.K. makes no provision for private copying, whereas both France and Spain have made private copying possible within one's family circle.

The courts in the E.U. add a further layer of interpretation to the implementation of the Electronic Commerce Directive. Much like the U.S. Digital Millennium Copyright Act, the E.U. directive limits liability for intermediaries that do not have knowledge of specific infringing material, and it does not place an obligation on intermediaries to monitor their own networks. However, the exact parameters have been the subject of several court cases.

For example, in the case of Scarlet v. SABAM, concluded in November 2011, the European Court of Justice ruled that Internet service providers (ISPs) cannot be ordered to install monitoring systems of electronic communications in the effort to protect intellectual property rights. The U.K. did, however, pass legislation that enables the government to require Internet access providers to block certain websites that "substantially" violate copyright law.

In order to understand the sentiment of angel and VC investors in Europe, we needed to focus on specific aspects of its regulatory environment. We spoke with experts and copyright attorneys at leading law firms to identify the important characteristics of the existing legal framework and categorize the major directions of copyright law. The following scenarios are by no means exhaustive, and they are not mutually exclusive; indeed, it is possible that they could occur in any combination. They include (1) the ease of obtaining licensing agreements, (2) the complexity in existing laws, (3) greater prosecution of end-users in violation of copyright law, and (4) holding websites liable for copyright infringement.

Licensing Agreements

At present, a digital content intermediary seeking to distribute content must negotiate a license with one of two parties: the individual who holds the copyright, or several separate parties that collectively control the copyright, which might include the original artists or composers, publishers such as record labels and studios, broadcasters and retailers, and collecting societies.

Ordinarily, seeking a license from an individual copyright holder is not a problem. However, in the case of "orphan works"—copyrighted content whose copyright holder cannot be found—licensing the content can be difficult or impossible.

The second source for obtaining a license—a network of parties, each of which must approve the license—involves having to determine the appropriate parties with which to negotiate, and often having to deal with several parties independent of one another. Moreover, a single piece of content may have different types of copyrights, each held by a different party. This is often the case with musicians who hold the mechanical rights to their songs but sell the publishing rights to record labels or others.

In addition, Europe presents a variety of specific complexities and challenges involving licensing, given its many different jurisdictions and layers of law.[10] A large network of

complicated laws and jurisdictions poses a greater risk to companies, even those acting in good faith. Thus, for example, Pandora, an online music streaming site, felt obliged to identify the complexity of international copyright law as a material risk to the business and a reason for not expanding into new markets.[11] The company blocked access for users outside the U.S., the U.K., and Canada, citing difficulty of and uncertainty around licensing as too great a risk for the business.[12]

The complexity in the current copyright situation may create three problems. First, it can be costly—obtaining rights often requires expensive experts and legal counsel. Second, it can take a long time to acquire rights. Third, the uncertainty of success can deter license seekers from beginning the process in the first place, due to the fragmentation and lack of transparency around rights ownership.

Legal Clarity

Once a DCI obtains a copyright license, it may still face a great deal of uncertainty, due to the possibility of being taken to court and the difficulty of understanding the complexities of the E.U. legal environment.

Several recent court rulings have increased that uncertainty. In 2006, Belgian publisher Copiepresse sued Google for copying snippets of its content on Google News in Belgium. The ruling in favor of Copiepresse raised the question as to whether very short amounts of copyrighted content, such as links to articles, could be shown on other websites without explicit permission. This issue was somewhat addressed in 2009, in Infopaq International v. Danske Dagblades Forening, when the European Court of Justice ruled that 11 or more words are protectable under copyright. Another important aspect of this ruling is the court's enunciation of what constitutes a protectable work: "the author's own intellectual creation." Though this particular issue was addressed by the courts, its resolution took three years, creating uncertainty in the interim.

Another case, LVMH (Louis Vuitton Moët Hennessy) v. eBay, which ended in 2008, raised the question of what constitutes adequate measures for preventing illegal online transactions. In this case, eBay was held liable for not sufficiently checking on the legality of sales between its users. And just two years later, in 2010, L'Oréal v. eBay resulted in a stronger mandate that eBay monitor its content and put in place preventive measures to inhibit future infringements on its website. Both rulings created the possibility of further lawsuits in other European countries.

The many different legal jurisdictions in the E.U. continue to create uncertainty. The Electronic Commerce Directive of 2000 and the Intellectual Property Rights Enforcement Directive of 2004 set by the European Parliament determined digital copyright law at the E.U. level. However, individual countries can adopt certain aspects of these laws, which can then be interpreted at the local level by local courts. These layers of laws add to an environment of uncertainty, given how difficult it can be to interpret the legal framework in the European Union.

Prosecuting Users

Film and TV studios and record labels, among others, have directed lawsuits against individual violators who download or distribute content without a license. In such cases, the burden of proof is high, and cases can last months or even years.

Another impediment to legal recourse against individual violators is jurisdictional. Infractions committed across borders are far more difficult to prosecute. Overseas pirates have long been able to hide behind conflicting national laws and regulations as they benefit from the borderless world of the Internet to reach users everywhere.

Website Liability
Liability for infringement could be shifted to DCIs by mandating that they implement preventive measures—such as screening content as, or shortly after, it is uploaded to their sites—to avoid infringement. In this situation, DCIs would be considered party to any copyright infringement and thus have to pay damages. Similarly, liability may be extended to ISPs, making them responsible for filtering the content they aggregate and thus financially accountable in the event of copyright violations.

These developments would require DCIs and ISPs to implement significant technical systems. Though such systems are uncommon today, there are some in existence. YouTube, for example, has instituted on its own what it calls the Content ID System. As video is uploaded to the site, the Content ID System compares it to a library of copyrighted video content voluntarily provided by copyright owners. If the uploaded content matches any content in the library, the system flags the video. Once a video is identified as potentially infringing, YouTube notifies both the poster of the content and its copyright owner and expedites the process of determining the legitimacy of the content. Now used extensively by YouTube, this solution cost a reported US$30 million and took more than 50,000 hours to develop.[13] It is estimated that 68 percent of the advertising profit on YouTube goes to content creators.[14]

Other websites, including Facebook, use programs similar to YouTube's Content ID System. Though the use of such systems is not currently legally mandated, the private sector has already begun implementing them on its own.

Chapter 4
THE DCI BUSINESS MODEL

To assess angel investor sentiment about the effects of potential regulations, we focused on investment in digital content intermediaries because they play an important role in the distribution of digital content and garner much attention in today's discussions about the Internet.

DCIs are a broad set of companies that provide hosting, distribution, and search capabilities for all kinds of digital media. They may include such well-known websites as Google's YouTube, desktop or cloud software like Apple's iTunes, digital forums such as Craigslist, peer-to-peer software programs like BitTorrent, and even some Internet-based physical distributors, including GameFly and Netflix. The category also includes many local European players, such as Gumtree, LoveFilm, and hmv.com in the U.K.; Deezer and Viadeo in France; and Tuenti, Rockola.fm, Series Yonkis, and Segundamano in Spain. DCIs typically distribute content that is either created by professionals, such as music and movies, or generated by users, such as personally uploaded blogs, photos, and videos.

In the ordinary course of business, DCIs provide value to consumers in two ways. First, they serve as a cheaper means of distribution than traditional outlets like music and video rental stores.[15] This means that it is much easier for artists to have their content distributed[16] and that a great deal more content is available to consumers.[17] Second, they can improve the consumption experience itself, through features like personalized recommendation systems and forums where consumers can share experiences and reactions.

Much of the financial advantage of distribution through DCIs can be attributed to the fact that they do not have to bear many of the traditional costs of manufacturing, packaging, and distribution (including shipping, storage, and inventory) or retail sales costs, such as the labor, insurance, real estate, and other overhead expenses associated with bricks-and-mortar stores. Indeed, DCIs have been shown to reduce the costs of content distribution and marketing for the music, film, and software industries by cutting out physical distribution steps and shifting marketing outreach to consumer-based viral efforts.[18]

Manufacturing, distribution, and retail sales costs make up an estimated 55 percent of the undiscounted price of a typical music CD in the U.S., for example. Artists, it is estimated, typically receive 12 percent in royalties—out of which they must pay other costs, including for promotions, packaging, and retailer returns. As a result, between 500,000 and 1 million CDs must be sold for an artist to break even. At least 90 percent of artists receive no royalties at all from their CD sales.[19]

Musicians have found ways to reduce costs on their own through self-marketing and distribution management websites. Firms like Bandcamp, FanBridge, ReverbNation, and Topspin Media help musicians market directly to fans, sell music online, and sell band paraphernalia as well. All of these activities help to lower the costs of producing and marketing CDs.[20]

Not only do the lower distribution costs lead to lower prices for consumers, but for the first time, they permit access to a wealth of content that was otherwise too expensive to supply.[21]

DCIs also offer content producers a number of new ways to monetize their content. Google AdSense, for example, allows website authors to add advertising banners and immediately begin earning revenue from visitors. YouTube allows copyright holders to earn advertising revenue from videos streamed on its site. These means of monetization do not require relationships with publishers, whether they are studios, record labels, or publishing houses, and they are available to anyone.

The further advantage for consumers—improving the consumption experience itself—depends in large part on the network effects many DCIs have created. Crowdsourcing—the generation of collective information from large groups of people—allows DCIs to analyze vast swaths of consumer data. From this data emerge insights on consumer needs and preferences not gleaned from bricks-and-mortar venues. For example, iTunes identifies top-rated and downloaded songs, while Spotify allows users to share their music playlists with one another and make suggestions. Facebook places advertisements tailored to each user's stated interests and activities, and extends that to his or her collection of friends as well.

DCIs have evolved to provide distinct value to consumers and content producers. They reduce producer costs and allow for immediate monetization for artists. Consumers have benefited from an increase in the pool of artists and content available as well as from a richer consumption experience.

Chapter 5
EMPIRICAL FINDINGS

The key goal of this study is to understand how changes to copyright law and regulations might affect levels of early-stage investment in digital content intermediaries. To that end, we surveyed 54 angel investors and interviewed 10 European venture capitalists regarding their attitudes toward the current and future status of copyright in Europe (*for a more detailed description of the methodology, see Appendix*).

Though we surveyed and spoke with fewer angels and VCs for this report than for the U.S. report, it is important to note that the results substantially confirmed the U.S. results. Angels in Europe reported a significant lack of comfort with regulatory ambiguity. Moreover, more stringent regulation of end-users in violation of copyright law in Europe, as well as holding DCIs liable for content uploaded by users, would have a negative impact on investment.

On the other hand, angel investors in Europe showed a considerably greater preference for E.U. copyright laws versus U.S. laws. In addition, increased antipiracy measures against user-uploaded websites generated a mixed reaction from European angels regarding their willingness to invest in DCIs.

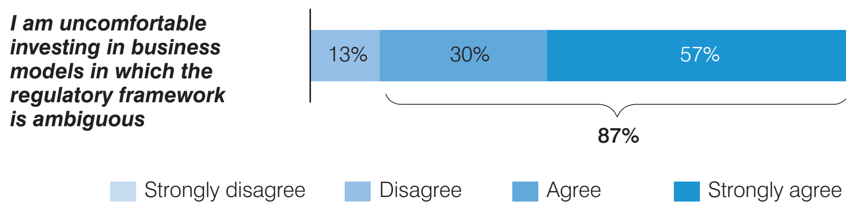
In this section we examine the results of the survey of European investors as they relate to four specific aspects of the copyright regulation landscape: regulatory ambiguity, access to licensed content, user liability, and DCI liability. We also discuss these results in relation to those from the U.S. survey.

Regulatory Ambiguity

Fully 87 percent of the angels we surveyed said they are uncomfortable investing in an area with an ambiguous regulatory framework (*see Exhibit 8*). This is comparable to 80 percent of U.S. investors who shared this view.

Exhibit 8
The Impact of Regulatory Ambiguity on Angel Investors

87% OF EUROPEAN INVESTORS ARE UNCOMFORTABLE INVESTING IN BUSINESS MODELS BESET BY REGULATORY AMBIGUITY



Note: Uses a small sample base for calculations.
Source: Booz & Company analysis

Our study also found that a clearer legal environment that allows websites to resolve legal disputes quickly would increase the willingness of investors to consider the space. The pool of investors interested in investing in a particular DCI would increase by nearly 19 percent if copyright regulations were clarified to allow websites to resolve legal disputes quickly, thereby lowering their cost to comply with regulations (*see Exhibit 9*). Though this represents a favorable reaction to the proposed legislation, it is significantly less than the 111 percent increase for U.S. investors. It must be noted that the initial interest level of European angels is significantly higher than that of U.S. angels (53 percent and 27 percent, respectively). This larger base level reduces the *proportionate* impact on investment interest, and so European results generally came in lower than U.S. ones.

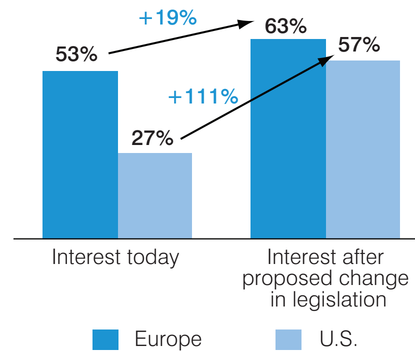
Although statutory damages for copyright infringement tend to be lower in Europe than in the U.S., we were interested in the effect of limiting damages on investment sentiment. Our study found that limiting penalties for websites acting in good faith would increase the pool of interested investors by 32 percent (*see Exhibit 10*). Though this is a substantial

Exhibit 9
Change in Investment Interest if Legal Disputes Could Be Resolved Quickly, Europe vs. U.S.

Clarifying copyright regulations to allow websites to resolve legal disputes quickly would:

- In Europe, increase the pool of interested investors by 19%

- In the U.S., increase the pool of interested investors by 111%



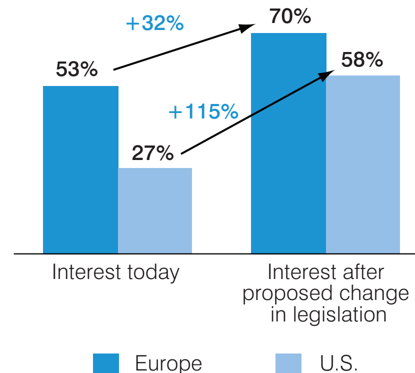
Note: Represents angels answering 5–7 on a 7-point “interest” scale where 4 = neutral and 7 = very interested. Uses a small sample base for calculations.
Source: Booz & Company analysis

Exhibit 10
Change in Investor Interest if Damages for Infringement Were Limited, Europe vs. U.S.

Limiting penalties for websites acting in good faith would:

- In Europe, increase the pool of interested investors by 32%

- In the U.S., increase the pool of interested investors by 115%



Note: Represents angels answering 5–7 on a 7-point “interest” scale where 4 = neutral and 7 = very interested. Uses a small sample base for calculations.
Source: Booz & Company analysis

increase, it is markedly lower than the likely increase among angels in the U.S., where the pool of interested investors would rise by 115 percent. Given that copyright statutory damages tend to be lower in the E.U., it comes as no surprise that this is a greater issue for U.S. angels.

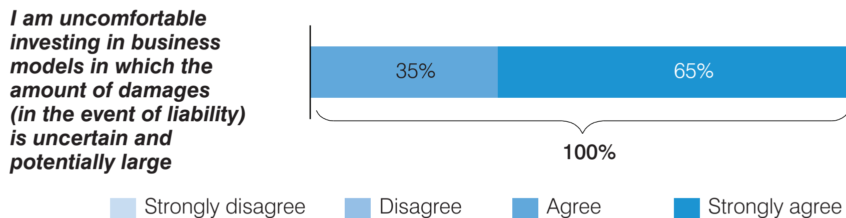
Moreover, fully 100 percent of respondents said uncertain and potentially large damages make them uncomfortable with investing in DCIs (*see Exhibit 11*). The corresponding figure among U.S. angel investors was 89 percent.

These results suggest that legal ambiguity in general deters investment. Greater clarity surrounding the current regulatory framework in copyright, specifically as it relates to limiting damages for website operators acting in good faith and allowing them to resolve litigation more easily, could have a positive impact on investment in DCIs.

Access to Licensed Content

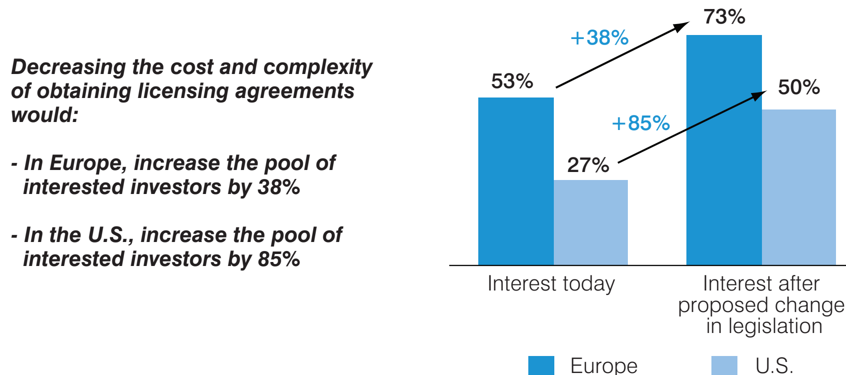
Just as increased regulatory clarity has a positive effect on investment, better access to licensed content is likely to improve the investment environment. We asked survey respondents if they would be interested in investing in a particular DCI, and then asked if their attitude would change if regulations were altered to decrease the cost and complexity of obtaining licensing agreements. Our study shows that the pool of respondents who were interested increased by 38 percent (*see Exhibit 12*). The comparable increase for the U.S.

Exhibit 11
Uncertain Potential Damages Make Angels Less Comfortable with Investing



Note: Uses a small sample base for calculations.
Source: Booz & Company analysis

Exhibit 12
Better Access to Content Increases Willingness to Invest, Europe vs. U.S.



Note: Represents angels answering 5–7 on a 7-point "interest" scale where 4 = neutral and 7 = very interested. Uses a small sample base for calculations.
Source: Booz & Company analysis

was much larger, at 85 percent, but investors in both geographies indicated a significant increase in interest.

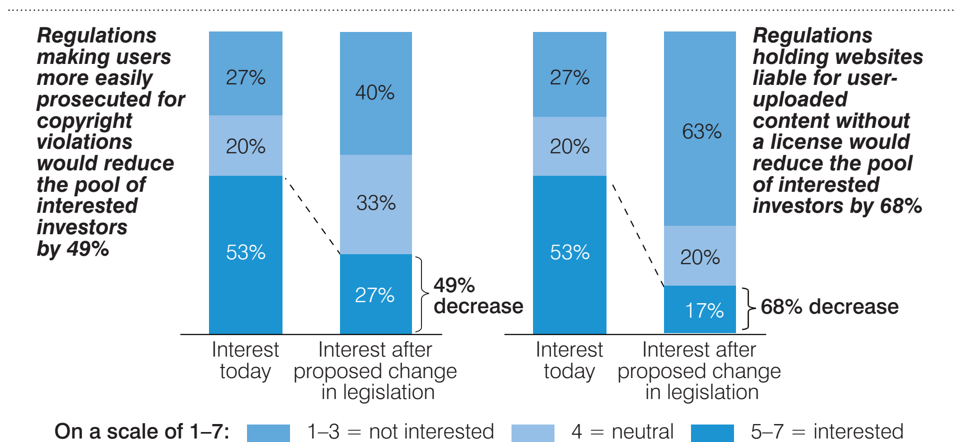
This suggests that decreasing the cost and complexity of obtaining licensing agreements would increase the pool of investment funds available to DCIs.

User Liability and DCI Liability

Though our results show that decreasing the cost and complexity of obtaining content licenses could increase investment in DCIs, our data suggests that increasing liabilities for users or content aggregators in cases of infringement would have a negative effect on investment. Making it easier to prosecute users for uploading content without licenses would reduce the pool of interested investors in Europe by 49 percent, compared with 48 percent in the U.S. (*see Exhibit 13*). And holding websites themselves liable for unlicensed content uploaded by users creates an even greater change in sentiment: The pool of interested investors would decline by nearly 68 percent in Europe and 81 percent in the United States.

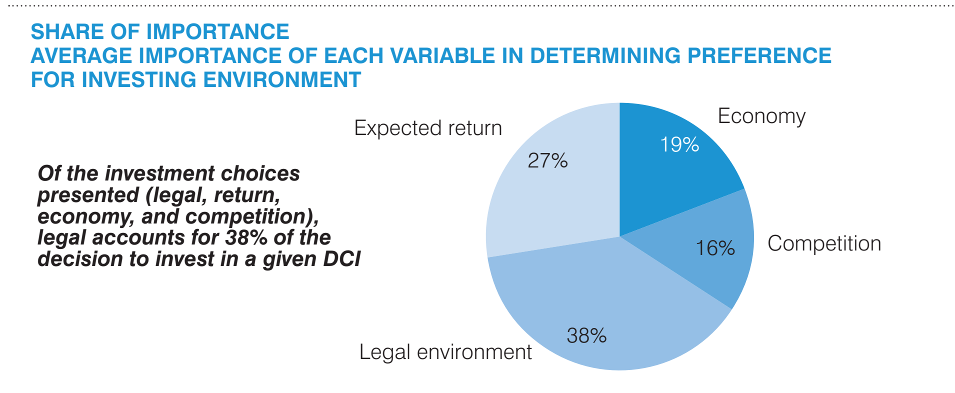
These results can be put into clearer context by considering them in terms of other factors that typically influence investment decisions, including expected returns, the relative level of competition, and the state of the overall economy. When angels were asked to choose an investment under a variety of conditions involving these factors, the results suggest that 38 percent of their investment decision is driven by the legal environments that were tested (*see Exhibit 14*), somewhat lower than the 47 percent figure for investors in the United States.

Exhibit 13
Greater Likelihood of Prosecution of Users and Websites Decreases Willingness to Invest



Note: Uses a small sample base for calculations.
Source: Booz & Company analysis

Exhibit 14
Importance of Selected Variables in Making Investment Decisions



Source: Booz & Company analysis

Indeed, even when offered a variety of scenarios in which trade-offs were made among these factors, investors still preferred an environment in which there was no change to the current regulatory regime (*see Exhibit 15*).

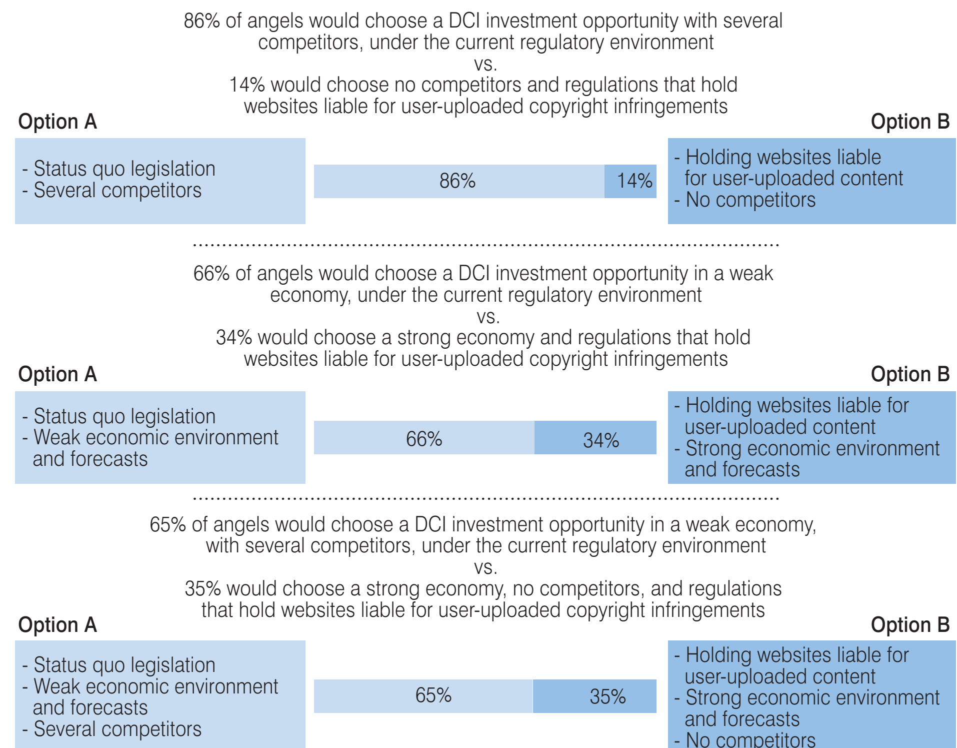
- 86 percent of investors said they would prefer making an investment in a company with several competitors, under today's regulatory rules, while just 14 percent said they would prefer no competitors but tighter regulations, almost exactly the same as the 87–13 split among U.S. angels.

- 66 percent would prefer an investment under today's regulatory rules and a weak economy, while 34 percent would prefer a strong economy but tighter regulations. (This is somewhat different from the 81–19 split among U.S. investors.)

- 65 percent would prefer an investment with both several competitors and a weak economy, under today's regulatory rules, while 35 percent would prefer no competitors and a strong economy but tighter regulations. (The split among U.S. investors was 74–26.)

A closer look at the results can also provide a quantitative understanding of the trade-offs investors make when deciding among competing investing criteria. As we have seen, holding either users or websites liable for uploaded unlicensed content would have a negative impact on investment. Under such circumstances, European investors would demand an additional expected return of seven times their original investment in order to overcome their reluctance and feel indifferent about investing in an environment where users are

Exhibit 15
Comparison of Investment Preferences Under Different Investing Environments



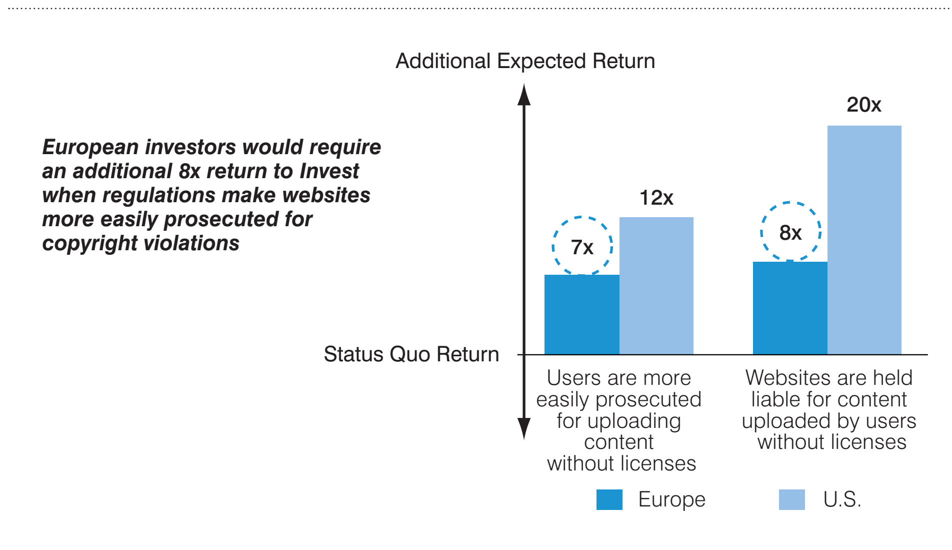
Source: Booz & Company analysis

held liable for uploaded unlicensed content. Results from the U.S. survey indicated that this trade-off figure is 12 times for U.S. angels (*see Exhibit 16*).

According to estimates by the Kauffman Foundation, the average return on angel investments is roughly three times the initial investment.[22] Therefore, investors in Europe would require a total return of 10 times their initial investment in order to generate the same willingness to invest under a regime in which users are held liable for uploading unlicensed content. The effect is slightly greater with respect to holding the DCIs themselves liable, as this would require an additional eight times the original investment (or a total expected return of 11 times) in order to make the potential investment comparable to investing in the same company under current copyright regulations. These results are essentially similar to those from the U.S. survey, but less pronounced, as U.S. angels required significantly greater expected returns to remain indifferent about the proposed regulations. But clearly, investors in both geographies would be more reluctant to invest in DCIs under a regime in which either users or websites are held liable for uploading unlicensed content.

Similarly, investors would demand significantly higher returns to move from the current regulatory environment to a copyright regime in which users or DCIs could be held liable for uploaded licensed content than they would to move from an "average" economy to a "weak" economy or from an environment with few competitors to one with several

Exhibit 16
Incremental Expected Returns Required to Make Investors Indifferent to Proposed Regulatory Environments, Europe vs. U.S.

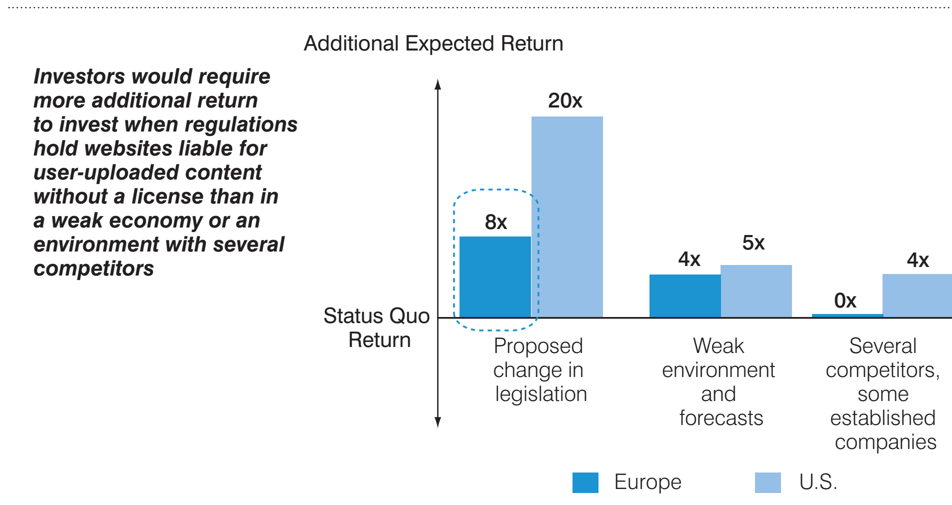


Source: Booz & Company analysis

(*see Exhibit 17*). These results were in line with those from the U.S. survey, which found that the proposed regulation was also significantly less attractive than a weak economy or stronger competition. But for European angels, the effect of competition was surprisingly low.

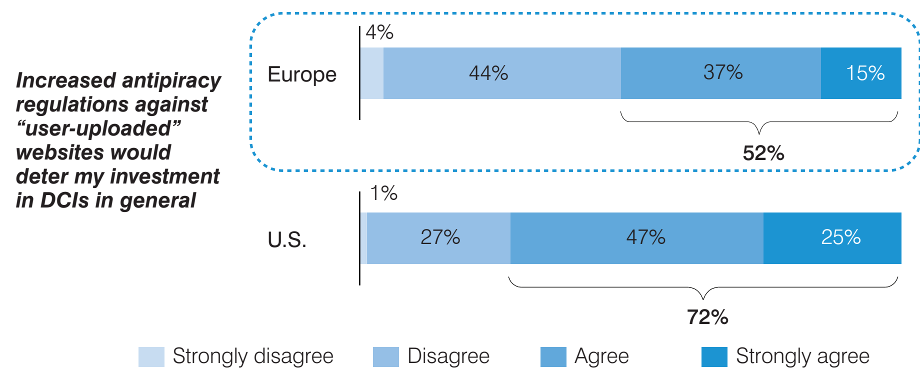
We also looked at the impact of increased antipiracy regulation on the willingness to invest in DCIs, under the assumption that it might lead to an increase in liability for either users or websites. Here, the results for Europe differed from those for the U.S.: 52 percent of European angels felt that increased antipiracy regulations would deter them from investing specifically in DCIs that offer user-uploaded music or videos, compared with 72 percent of angels in the U.S. (*see Exhibit 18*). Nevertheless, this still represents a significant share of the angel population that reports being deterred by antipiracy regulations.

Exhibit 17
Incremental Expected Returns Required in Different Regulatory Environment, Compared with Economic Conditions



Source: Booz & Company analysis

Exhibit 18
The Effect of Greater Antipiracy Regulation on Investor Willingness, Europe vs. U.S.

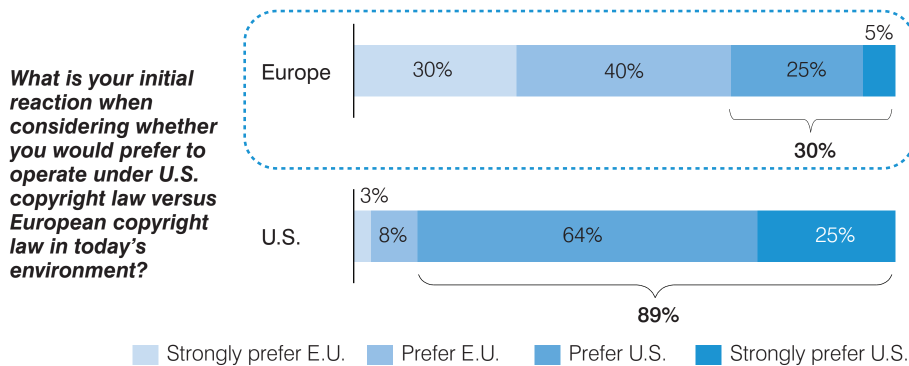


Note: Uses a small sample base for calculations.
Source: Booz & Company analysis

Finally, our study shows a preference among European angels for European copyright laws when considering the regulatory framework under which DCIs operate—70 percent prefer European laws and 30 percent prefer U.S. laws, while fully 89 percent of U.S. angels prefer U.S. laws (*see Exhibit 19*). To some degree, this preference for the laws one is familiar with is to be expected. The significant difference in the relative strength of preference for their home laws is striking, however. This suggests that either there is a difference in point of view between U.S. and European angel investors—perhaps European angels have a greater openness to considering other countries' regulations—or there are significant differences in the two geographies' copyright laws that make them more or less attractive to investors.

In summary, our European study results generally fall in line with those from the United States. More stringent regulations of intermediaries would deter many angels from investing in the space. Furthermore, clarifying legal ambiguity, limiting penalties for good-faith actors, and decreasing licensing costs and complexity would likely be met with increased investment interest.

Exhibit 19
Angel Preference for Investing in DCIs Operating Under U.S. vs. European Copyright Law



Note: Uses a small sample base for calculations.
Source: Booz & Company analysis

Chapter 6
IMPLICATIONS FOR REGULATORS

The results of our research indicate that efforts to increase the stringency of the current copyright regulation landscape would have an adverse effect on early-stage investments in the DCI space. Specifically, our findings suggest the following:

- The regulatory environment is a larger driver of early-stage investment decisions than the state of the economy, the degree of competition in the space, or even the expected return on investments.

- Increasing the liability of users or websites in cases of copyright infringement will likely have a greater negative effect on investment than would a weak economy or a more competitive landscape.

Given these findings, our study suggests that it is important that regulators consider the following when debating potential new regulations:

- Early-stage investment is a critical component in the formation of new businesses. The impact of new regulations on the willingness of angel investors and venture capitalists to invest should be fully understood and taken into account before new regulations holding users or content providers liable are considered.

- Reaching out to local early-stage investors will provide regulators with an opportunity to understand investors' specific assessments of potential regulations and their implications for the level of future investment. This should be an important consideration when regulators seek to determine the impact of regulatory change on their local economies and communities.

Furthermore, our study found that an unclear or ambiguous legal environment in a particular space makes European early-stage investors uncomfortable about investing in that space. While the following steps were not explicitly tested in this study, they might be valuable:

- Identify areas of copyright regulation that are particularly prone to litigation and look to clarify those regulations so that DCIs acting in good faith are less likely to be engaged in litigation.

- Understand the discontinuities in copyright law across the many different jurisdictions in the E.U. and identify areas that could be harmonized.

- Assess the full set of economic implications when considering any new regulations, especially regulations that could lead to large compliance costs.

Appendix
METHODOLOGY

This study took the form of an online survey of angel investors and a set of interviews with prominent venture capitalists. The survey of angel investors was designed to serve as a broad quantitative measure of investing behavior, while the interviews offered a more qualitative perspective and helped add color to the otherwise purely numerical results. The interviews also helped generate hypotheses about angel attitudes, which were then incorporated into the quantitative survey. In combination, the two provide a thorough perspective on early-stage investing behavior.

We worked with Keiretsu Forum, a top angel organization, to provide us access to their membership, which consists of wealthy U.S. and international angel investors, as well as guidance on how to design and administer the survey. In addition, Keiretsu Forum connected us with several other angel groups, including Alliance of Angels, Angel List, Angel Resource Institute, Band of Angels, Boise Angel Fund, Dingman Angels, Harvard Angels, Oregon Entrepreneurs Network, PA Angel Network, Plug and Play Tech Center, Sacramento Angels, and Sand Hill Angels, as well as several European-based groups, including BCN Business Angels, Beer & Partners, Bulgarian Business Angels Network, Digital Assets Deployment, EBAN, and Investir en Direct. All of these groups were very helpful in allowing us to contact their members as well. This variety of groups allowed for a more geographically diverse sample and helped increase the sample size.

A total of 54 angels completed the Web survey and were verified as valid respondents. Incomplete and duplicate responses were removed, as well as those from respondents who spent less than five minutes on the survey, as this was deemed too short a time to have completed the survey thoughtfully; the mean response time was 19 minutes. (A copy of the entire survey is available on request.)

In addition to our standard analysis of the results, we also conducted what is called a conjoint analysis to arrive at some of our results. This is a statistical modeling technique used to gauge the value of discrete components of a complex value proposition or decision. Conjoint analysis is particularly valuable for understanding trade-offs among attributes, and thus can provide insights not otherwise captured through the answers to direct questions.

For the conjoint section of the survey, respondents were presented with an investment in a hypothetical DCI. We held constant the internal variables of the investment, such as the company's business description, management team, capital structure, financial situation, and exit strategy. We then varied several external variables relating to the investing environment, such as the state of the economy, degree of competition, legal environment, and expected return. By forcing respondents to choose among different scenarios, we were able to tease apart statistically the underlying preferences through the observed trade-offs. The results are shown in Chapter 5. (A more complete description of how we conducted the conjoint analysis is available on request.)

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