



Before the
United States House of Representatives Committee on the Judiciary
Subcommittee on Courts, Intellectual Property, and the Internet
Regarding
“Innovation in America: The Role of Technology”
August 1, 2013
Statement of the
Computer & Communications Industry Association

The Computer & Communications Industry Association (CCIA) represents large, medium-sized, and small companies in the high technology products and services sectors, including computer hardware and software, electronic commerce, telecommunications and Internet products and services – companies that collectively generate more than \$250 billion in annual revenues. As with CCIA’s submission regarding last week’s hearing on the role of copyright in U.S. innovation,¹ this submission furnishes the committee with available empirical data relevant to the subject of the hearing. CCIA requests that this statement be included in the record of this hearing.

II. The Economic Impact of Internet-Enabled Technology on the Economy

The impact of technology, and more specifically, Internet-enabled technology, has transformed the U.S. economy, and this transformation will continue in the years ahead. The Internet accounted for 21% of GDP growth in mature economies in recent years, and, on average, 3.4% of GDP across the large economies that make up 70 percent of global GDP.² If the Internet were a nation, it would have surpassed Italy and Brazil in 2010,³ and by 2011 it

¹ Available online at <http://www.cciagnet.org/CCIA/files/ccLibraryFiles/Filename/000000000814/CCIA%20Stmnt%20on%20Innovation-Role%20of%20Copyrights.pdf>.

² James Manyika & Charles Roxburgh, *The great transformer: The impact of the Internet on economic growth and prosperity* (McKinsey Global Institute, October 2011), at 1, available at http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_great_transformer.

³ David Dean *et al.*, *The Connected World: The \$4.2 Trillion Opportunity - The Internet Economy in the G-20* (Boston Consulting Group 2012), at 3, available at https://publicaffairs.linx.net/news/wp-content/uploads/2012/03/bcg_4trillion_opportunity.pdf.

outranked Spain and Canada in terms of GDP, and demonstrated a growth rate faster than the Brazilian economy. In fact, in numerous advanced economies, the Internet accounted for 10% of GDP growth over the past 15 years.⁴ So rapidly has the Internet grown that its contribution to the U.S. economy now exceeds that of the U.S. Federal Government, and by 2016 is estimated to reach \$4.2 trillion across all G-20 economies.⁵ This growth is not localized within the ‘tech sector;’ research indicates that 75% of the positive impact of the Internet accrued to traditional industries through efficiency gains and expanded markets. Moreover, SMEs who heavily utilized the Internet exported twice as much as those that did not.⁶ Among selected G-20 countries in recent years, “high-Web” SMEs experienced revenue growth 22% higher than those with low or no Web usage.⁷

It is difficult to overstate the impact of this sector. Search technology alone provided at least \$780 billion in value worldwide in 2011,⁸ and while the growth of “consumer-facing” sites like Facebook, YouTube, and Twitter, have revolutionized the economy, the sector also includes a largely overlooked consumer support layer, including advertising, that contributes substantially to growth and job creation.⁹ Additional potential for growth still exists: a recent publication of the World Economic Forum concluded that the Internet “can be a powerful tool to unlock SME export potential”, and that removing barriers to Internet-enabled international trade could increase cross-border opportunities for small businesses by 60% to 80%.¹⁰

III. Impact of Technological Innovation on the Market for Content

Although new technology has considerably changed how modern users access and experience content, and in many cases disintermediated old gatekeepers, this sea change has broadly benefited both artists and consumers. Research in 2012 observes that consumers have

⁴ Matthieu Pélissié du Rausas *et al.*, *Internet matters: The Net’s sweeping impact on growth, jobs, and prosperity* (McKinsey Global Institute, May 2011), at 1, *available at* http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters; *see also* Manyika & Roxburgh, *supra*.

⁵ Dean *et al.*, *supra*, at 3.

⁶ du Rausas *et al.*, *supra*, at 3.

⁷ Dean *et al.*, *supra*, at 14.

⁸ Jacques Bughin *et al.*, *The impact of Internet technologies: Search* (McKinsey Global Institute 2011), at 1, *available at* http://www.mckinsey.com/insights/marketing_sales/measuring_the_value_of_search.

⁹ John Deighton, *Economic Value of the Advertising-Supported Internet Ecosystem* (Interactive Advertising Bureau 2012), *available at* http://www.iab.net/media/file/iab_Report_September-24-2012_4clr_v1.pdf.

¹⁰ World Economic Forum, *Enabling Trade, Valuing Growth Opportunities* (2013) at 19-20.

increased spending on content across the board in the last decade, as new technology has increased options for content consumption. Video, book publishing, music, and video games, have all grown over the decade since the Internet explosion.¹¹ These findings seem to be corroborated by independent academic research, which confirms that the advent of the Internet has increased the overall supply and reduced concentration in the market for recorded music.¹²

Insofar as a lack of lawful, affordable options contribute significantly to global media piracy,¹³ the availability of new outlets and platforms for content consumption help to diminish this effect. Research just published by Spotify indicates that the introduction of the service into the Netherlands and Sweden substantially decreased unlawful music downloads in those countries, whereas it still remains quite prevalent in Italy, where Spotify only just launched.¹⁴ A study just released by Norwegian firm Ipsos MMI found that the introduction of both Netflix and Spotify into that country were followed by a 50% reduction in video piracy and 80% reduction in music piracy.¹⁵

IV. Impact of Copyright Regulation on Technology Intermediaries

Although most technology and Internet sectors businesses are themselves beneficiaries of the intellectual property system, the burdens imposed in the form of IP compliance must be weighed against these benefits. Copyright regulations have as great an impact on early-stage investment, and consequently, innovation, as the economy.¹⁶ Interviews with hundreds of angel

¹¹ Michael Masnick & Michael Ho, *The Sky is Rising* (Floor64 2012), available at <http://www.ccianet.org/CCIA/files/ccLibraryFiles/Filename/000000000586/TheSkyIsRising7-130.pdf>.

¹² A review of 30 years' data of new works of recorded music, including album sales, and traditional and Internet radio airplay, found that the total quantity of new albums released annually has increased sharply since 2000, driven by independent labels and purely digital products, along with a corresponding decreased concentration of sales in the top albums. The review also found increasing numbers of albums find commercial success without substantial traditional airplay; independent label albums account for a growing share of commercially successful albums. See Joel Waldfogel, *And the Bands Played On: Digital Disintermediation and the Quality of New Recorded Music* (Univ. Minnesota, NBER 2012 (prelim. draft)) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2117372.

¹³ Joe Karaganis, ed., *Media Piracy in Emerging Economies* (Social Science Research Council 2011), available at <http://piracy.americanassembly.org/wp-content/uploads/2011/06/MPEE-PDF-1.0.4.pdf>.

¹⁴ Will Page, Spotify, *Adventures in the Netherlands*, July 17, 2013, available at <http://press.spotify.com/uk/2013/07/17/adventures-in-netherlands/>.

¹⁵ Sophie Curtis, *Spotify and Netflix Curb Music and Film Piracy*, The Telegraph, July 18, 2013, available at <http://www.telegraph.co.uk/technology/news/10187400/Spotify-and-Netflix-curb-music-and-film-piracy.html>.

¹⁶ Matthew Le Merle et al., *The Impact of U.S. Internet Copyright Regulations on Early-Stage Investment A Quantitative Study* (Booz & Company 2011), available at

<http://www.booz.com/media/file/BoozCo-Impact-US-Internet-Copyright-Regulations-Early-Stage-Investment.pdf>.

investors and venture capitalists found them to be overwhelmingly wary of new regulations and to seek an unambiguous copyright regime. In particular, increasing user or website liability would negatively affect innovation by driving early investors into other areas. Polling conducted by Booz & Co. found that such risk could have the effect of reducing the pool of interested angel investors by 81%, and that increased exposure for users would likely reduce the pool of interested angel investors by 48%.¹⁷ In general, 80% of investors polled reported being uncomfortable investing in business models in which the regulatory framework is ambiguous.¹⁸

Changes in copyright law and policy that provide more certainty for intermediaries, such as the Court of Appeals for the Second Circuit's decision in *Cartoon Network, LP v. CSC Holdings, Inc.* ("Cablevision"), positively impact venture capital investment in cloud computing. The *Cablevision* decision led to additional incremental investment in U.S. cloud computing firms that ranged from \$728 million to approximately \$1.3 billion over the two-and-a-half years after the decision; the approximate equivalent of \$2 to \$5 billion in traditional R&D investment.¹⁹ After the *Cablevision* decision, the average quarterly investment in cloud computing in the United States increased by approximately 41 percent.²⁰ In contrast with the U.S. law, European courts took a different approach, reaching decisions that increased risk for the online intermediary platforms that account for 1.4% of the European GDP.²¹ Copyright decisions in France and Germany unfavorable to cloud computing led to an average reduction in VC investment in French and German cloud computing firms of \$4.6 and \$2.8 million per quarter, respectively, implying a total decrease in French and German VC investment of \$87 million from the time these decisions were handed down through the end of 2010.²²

¹⁷ *Id.* at 6.

¹⁸ *Id.*

¹⁹ Josh Lerner *et al.*, *The Impact of Copyright Policy Changes on Venture Capital Investment in Cloud Computing Companies* (Analysis Group 2011), at 1, available at http://www.analysisgroup.com/uploadedFiles/Publishing/Articles/Lerner_Fall2011_Copyright_Policy_VC_Investments.pdf.

²⁰ *Id.* at 9.

²¹ Copenhagen Economics, *Online Intermediaries: Assessing the Economic Impact of the EU's Online Liability Regime* (EDiMA 2012), at 24, available at <http://www.europeandigitalmedia.org/uploads/Press/documents/Copenhagen%20Economics-Online%20Intermediaries-201201.pdf>.

²² Josh Lerner *et al.*, *The Impact of Copyright Policy Changes in France and Germany on Venture Capital Investment in Cloud Computing Companies* (Analysis Group 2012), at 1, available at http://www.analysisgroup.com/uploadedFiles/News_and_Events/News/2012_EU_CloudComputing_Lerner.pdf.

As CCIA has previously noted, much of this important industrial activity benefits from various limitations and exceptions to copyright.²³ The balance inherent in U.S. copyright law, including limitations such as fair use, has nurtured an environment of productive growth, and economic expansion. In 2008 and 2009, industries benefiting from limitations and exceptions to copyright accounted for an average of 4.6 trillion in revenues, and contributed an annual average of \$2.4 trillion in “value added” to the U.S. economy, or approximately 17 percent of total U.S. current dollar GDP (roughly one-sixth of the economy.) This ‘fair use economy’ employs 17 million people, about 1 in 8 U.S. workers, and in 2008-09 generated a payroll averaging \$1.2 trillion. Exports of goods and services related to fair use industries increased to \$266 billion in 2008-09. Notably, exports of trade-related services, including Internet or online services, were the fastest growing segment, increasing nearly ten-fold from \$578 million in 2002 to more than \$5 billion annually in 2008-2009.²⁴

V. Conclusion

Scholars have furnished numerous proposals by which Congress can ensure that IP regulations promote continued growth in the 21st century business landscape,²⁵ and these proposals may merit consideration at the appropriate time. As CCIA stated in response to the Committee’s prior hearing, however, a broader copyright reform effort should begin with objective research, as called for by the National Academies’ recent report, *Copyright in the Digital Era*.²⁶ Providing for such research will be an essential first step in this process of reviewing the Copyright Act.

²³ Thomas Rogers & Andrew Szamoszegi, *Fair Use in the U.S. Economy: The Economic Contribution of Industries Relying Upon Fair Use* (CCIA 2011), available at <http://www.ccia.net.org/CCIA/files/ccLibraryFiles/Filename/000000000526/CCIA-FairUseintheUSEconomy-2011.pdf>.

²⁴ *Id.* The U.S. is not alone in this experience. Research indicates that the introduction of fair use amendments in Singapore substantially increased the growth of industries relating to private copying technology, while having a negligible impact on copyright industries. Roya Ghafele & Benjamin Gibert, *The Economic Value of Fair Use in Copyright Law. Counterfactual Impact Analysis of Fair Use Policy On Private Copying Technology and Copyright Markets in Singapore* (Oxford Ltd. 2012), available at http://works.bepress.com/roya_ghafele/12. Research in Europe also indicates a substantial reliance on copyright “flexibilities”, although not as substantial as in the United States. See P. Bernt Hugenholtz & Martin R.F. Senftleben, *Fair Use in Europe. In Search of Flexibilities* (Universiteit van Amsterdam 2011), available at <http://www.ivir.nl/publications/hughenholtz/Fair%20Use%20Report%20PUB.pdf>.

²⁵ See, e.g., Michael Carrier, *Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law* (Oxford Univ. Press 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1368931.

²⁶ National Research Council, *Copyright in the Digital Era: Building Evidence for Policy* (2013) at ix, available at http://www.nap.edu/catalog.php?record_id=14686.