

## THE FACTS ONE-PAGER

### **Creative industries have embraced new digital models to expand audience access to creative works.**

- Currently, there are 480 legitimate online sources for film and TV content globally, with 120 in the United States alone.

### **The creative industries contribute substantially to the U.S. economy.**

- In 2015, core copyright industries (film, television, music, radio, books, photography, newspapers, and software in all formats) added more than \$1.2 trillion of value to the U.S. GDP, and accounted for 6.88% of the U.S. economy -- exceeding aerospace, agriculture, and pharmaceuticals.
- Core copyright industries employed over 5.5 million people, while total copyright industries employed nearly 11.4 million workers (2015).
- The national average annual salary for core copyright workers was \$93,221 (2015).
- The national average annual salary for production employees is well above the national private-sector average at \$82,117 (2016).

### **The piracy ecosystem is enormous in scope and has global financial repercussions for all creative industries.**

- Pirate sites have increasingly moved to streaming video, with the number of streaming pirate sites increasing by 40% from 2013-2014.
- The top 30 cyberlockers make nearly \$100 million per year from stolen creative works (2014).
- In several instances, cyberlockers generate more internet traffic than major commercial websites. For example, two of the most popular cyberlockers, 4Shared and Putlocker, have a higher Alexa Ranking than [WSJ.com](http://www.wsj.com), [USAToday.com](http://www.usatoday.com), [Target.com](http://www.target.com), or [Nike.com](http://www.nike.com) (2016).

### **Piracy affects every creative industry. Here are statistics for film, television, music, and book publishing.**

- Film:
  - All eight Best Picture contenders from the Oscars® 2016 were available on file-sharing sites by the time of the Academy Awards®, according to the pirate-tracking firm Tecxipio, with downloads of these films up 59% from 2015.
  - The celebrated 2013 film *Dallas Buyers Club* grossed over \$50 million worldwide theatrically, which translates to approximately 7 million tickets sold. But since the film's release, there have been roughly 22 million piracy transactions – 300% more than paid ticket sales. If 5% of the pirated transactions had been paid theatrical ticket sales, the film would have earned an additional \$7.7 million (it actually earned \$27.2 million).
- Television:
  - For the past five years, HBO's *Game of Thrones* has topped the list of most-downloaded TV shows using BitTorrent. The greatest number of people actively sharing an episode across several torrents was 350,000 at its peak... which happened directly after the season finale became available online legally!
- Music:
  - In 2014, economics consultancy Frontier Economics estimated that U.S. internet users annually consume between \$7 and \$20 billion worth of digitally pirated recorded music.
  - According to the Nashville Songwriters Association International, the number of full-time songwriters in Nashville has dropped 80% since 2000 (2015).
- Book Publishing:
  - According to the Association of American Publishers, the publishing industry as a whole has lost \$80-100 million to online piracy annually.

### **Pirate websites spread malware, spyware, and viruses.**

- A study commissioned by Digital Citizens Alliance and conducted by RiskIQ found that one out of every three pirate sites contained malware. RiskIQ estimated that on a monthly basis, 12 million U.S. internet users are exposed to malware from pirate sites.

### **Advertisers, ad agencies, and online ad networks play a role in supporting and enabling online piracy.**

- In 2014, nearly 600 pirate sites generated an estimated \$209 million in revenue from advertising alone – a significant portion of those revenues came from ads for major U.S. and global brands.
- Megaupload earned over \$25 million from selling online advertising around pirated video and music during its operation.

### **Search engines play a role in supporting and enabling online piracy.**

- Each month, Google receives around 75 million DMCA takedown requests. This amounts to 900 million DMCA requests per year.

## THE FACTS

**Creative industries have embraced new digital models to expand audience access to creative works.**

- More and more content is being made available online legally through a variety of distribution platforms – offering audiences content when, where, and how they want it.
  - Currently, there are 480 legitimate online sources for film and TV content globally, with 120 in the United States alone.<sup>1</sup>
  - Creative industries are working with popular, freestanding platforms – some with acquisition budgets of billions of dollars per year – like Amazon Prime, Hulu, Netflix, iTunes, Apple Music, Pandora, and Spotify.
  - Streaming has become the most prevalent and significant format in the modern music industry. More than 100 million users subscribe to paid music streaming services like Spotify and Apple Music, which now account for 50% of total recorded music revenues.<sup>2</sup>
  - Each year, content acquisition spending increased for many streaming services, including Hulu, Amazon Prime, and Netflix. In 2015, Hulu spent \$1.5 billion on content acquisition, while Amazon spent \$1.7 billion and Netflix spent \$3.3 billion.<sup>3</sup>
  - In recent years, numerous broadcasters and television channels have launched stand-alone streaming services that do not require consumers to have a cable subscription – examples include CBS All Access,<sup>4</sup> HBO Now,<sup>5</sup> Showtime, StarzPlay, DirectTV Now, NatGeo TV, FOXNOW, Fox Sports Go, and Watch HGTV.
  - On January 1, 2016, Netflix reached 81.5 million subscribers worldwide,<sup>6</sup> streaming 42.5 billion hours of video last year alone.<sup>7</sup> The streaming service is now available in nearly 200 countries and territories around the world.<sup>8</sup>
  - In 2017, Netflix expects to launch 1,000 hours of original programming, compared with 600 hours in 2016.<sup>9</sup>
  - More than one million movies and television shows are purchased every day on iTunes.<sup>10</sup>
  - Hulu offers hundreds of thousands of hours of current season programming, premium original content, films, and full seasons of hit television series to subscribers.<sup>11</sup> In the first quarter of 2015, viewers streamed over 700 million hours of content on Hulu.<sup>12</sup>
  - Amazon Prime has an estimated 60 to 80 million subscribers globally who get access to thousands of movies, television shows, songs, and books.<sup>13</sup> Amazon’s success is

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<sup>1</sup> [U.S. Availability of Film and TV Titles in the Digital Age](#), 3.17.16

<sup>2</sup> [Global Music Report 2017](#), 4.28.17

<sup>3</sup> [How Does Netflix Pay Studios? What the Streaming Giant Does to Obtain Content](#), 2.4.16

<sup>4</sup> [CBS launches expansive digital subscription service](#), 10.16.14

<sup>5</sup> [HBO Now launches on Apple TV](#), 4.7.15

<sup>6</sup> [Netflix faces growing competition as new and old rivals step up their game](#), 6.18.16

<sup>7</sup> [Netflix Hits 75 Million Streaming Subscribers on Strong Overseas Growth](#), 1.19.16

<sup>8</sup> [Countries Where Netflix is Now Available](#), 1.6.16

<sup>9</sup> [Netflix will release 1,000 hours of original programming in 2017](#), 10.19.16

<sup>10</sup> [As the world churns: The young and restless world of online video](#), 9.19.13

<sup>11</sup> [About Hulu](#), 10.11.16

<sup>12</sup> [The Hulu Drumbeat Continues at the 2015 Upfront Presentation](#), 4.29.15

<sup>13</sup> [These numbers explain why Amazon wants to give so much free stuff to Prime members](#), 10.20.15

driven by three factors: the growth of its Fire TV streaming device, the roll-out of a standalone streaming video service, and increased investment in both original content with an estimated \$3.2 billion invested in 2016 and a \$1.7 billion-dollar investment in content acquisition.<sup>14</sup>

- Cable and satellite providers increasingly offer expansive online, anytime access to programming through their own websites and apps (such as Xfinity, DirecTV, Sling TV, and TWC TV) and through standalone apps such as HBO Go, Showtime Anytime, WatchESPN, CBS All Access, Bravo Now, FXNow, and the NBC app.
  - Comcast subscribers watched more than 3 billion hours of Xfinity On Demand content in 2015, from a library that includes 75,000 choices.<sup>15</sup> Last year, FiOS' 4th annual Free On Demand Spring Marathon set viewership records, attracting 1.8 million unique users, a 16% increase over the previous year. Verizon's FiOS service offers over 100,000 titles through Video On Demand (VOD).<sup>16</sup>
  - In 2009, entertainment companies began collaborating with cable companies on TV Everywhere – an initiative that allows cable subscribers to access all their video programming online outside the home on any device, providing anytime, anywhere access to live and On Demand content.<sup>17</sup> Today, NBC, ABC, FOX, ESPN, HBO, Disney, Discovery Networks, and many others participate in delivering their content via the web to a multitude of personal devices.<sup>18</sup>
  - The number of households in the U.S. and Canada that actively use TV Everywhere apps has tripled in 2013 and 2014, resulting in a total of 14.7 million households.<sup>19</sup>
- Digital retailers are also expanding access to legitimate content.
  - Walmart acquired content delivery and media company VUDU, which allows customers to access digital versions of Blu-ray and DVD films they purchase through the retailer.<sup>20</sup>
  - Best Buy's CinemaNow program allows users to convert purchased Blu-rays and DVDs to digital content through the UltraViolet system.<sup>21</sup>
- Streaming media players (Amazon Fire, Apple TV, Google Chromecast, and Roku), game consoles (PlayStation and Xbox), and other devices are expanding access to easy, affordable, and legal streaming.
- Searching for legitimate film and television content is easier than ever before.
  - U.S. services that help audiences find legitimate content include [CanIStream.it](#), [Decider](#), [GoWatchit.com](#), [fan.TV](#), [FindAnyFilm.com](#), [ReelGood](#), and [JustWatch](#).
- In a 2014 study, the research firm KPMG<sup>22</sup> selected 808 film titles and 724 television titles (a sample representing the most popular and most critically acclaimed works) and analyzed their availability across 34 legitimate online video-on-demand services.
  - 94% of the most popular and critically acclaimed films are legally available online in the U.S.

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<sup>14</sup> [Amazon Prime Growing Fastest Among Streaming Video Services](#), 10.24.16

<sup>15</sup> [Xfinity On Demand Top 20 TV for the Week of January 25 – January 31](#), 2.9.16

<sup>16</sup> [FiOS Free On-Demand Spring Marathon Sets Viewership Record](#), 5.5.15

<sup>17</sup> [Comcast expands online video to all cable+Internet customers](#), 12.15.09

<sup>18</sup> [Discovery Bows TV Everywhere App](#), 12.01.15

<sup>19</sup> [TV Everywhere Viewing Is Growing But Still Too Difficult To Access – TCA](#), 7.29.15

<sup>20</sup> [TECHSPOT: Walmart announces disc-to-digital service for DVD and Blu-ray discs](#), 3.14.12

<sup>21</sup> [CNET: BestBuy will now convert your discs to digital files from your PC](#), 12.21.12

<sup>22</sup> [KPMG Report: Film and TV Title Availability in the Digital Age](#), 9.25.14

- 77% of the top 100 box office films for 2013 (the year the study was conducted) are available legally on at least one online video service.
- Of the top 20 theatrical domestic box office hits from 2000-2010, 98% are legally available online in the U.S.
- 87% of the top 100 TV shows are available on at least one online video distribution service.
- 96% of the “AFI Top 100 Films” are legally available online in the U.S.
- Of the 60 top indie film hits from 2011-2013, 100% are legally available online in the U.S.
- KPMG released a similar study in the U.K. in 2014 covering data until December 2013.<sup>23</sup> The study analyzed the availability of the most popular and critically acclaimed film and TV titles across 27 legal streaming and download services, including Netflix, Amazon Prime, and iTunes, among others.
  - 86% of the most popular and highest quality film titles are available on at least one of the online video on demand services.
  - 100% of the top U.K. all-time theatrical box office hits are offered on at least one of the services.
  - 89% of independent films are available on at least one service.
  - 75% of top U.K. 100 TV programs are available on at least one service.

#### **The creative industries contribute substantially to the U.S. economy.**

- According to a report released in December 2016 by the International Intellectual Property Alliance, covering the year 2015, core copyright industries (film, television, music, radio, books, photography, newspapers, and software in all formats) added more than \$1.2 trillion of value to the U.S. GDP, accounting for 6.88% of the U.S. economy. The value added by the total copyright industries neared \$2.1 trillion to the U.S. GDP, accounting for 11.69% of the U.S. economy.<sup>24</sup>
  - From 2012 to 2015, core copyright industries grew at an aggregate annual rate of 4.81%, while the average growth rate of the entire U.S. economy during the same period was only 2.11%.<sup>25</sup> This means core copyright industries grew 127% more than the remainder of the U.S. economy.
  - U.S. copyright products sold overseas amounted to \$177 billion in sales for 2015. The foreign sales of selected copyright industry sectors far exceed the foreign sales of other major U.S. industries, including chemicals (\$135.8 billion), aerospace products and parts (\$134.6 billion), agricultural products (\$62.9 billion), and pharmaceuticals and medicines (\$58.3 billion).
  - Core copyright industries employed over 5.5 million people in 2015, while total copyright industries employed nearly 11.4 million workers.<sup>26</sup>
  - The national average salary for core copyright workers was \$93,221 in 2015.<sup>27</sup>

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<sup>23</sup> [KPMG Report: U.K. Availability of Film and TV Titles in the Digital Age](#), December 2014

<sup>24</sup> [Copyright Industries in the U.S. Economy](#), 2016

<sup>25</sup> [Copyright Industries in the U.S. Economy](#), 2016

<sup>26</sup> [Copyright Industries in the U.S. Economy](#), 2016

<sup>27</sup> [Copyright Industries in the U.S. Economy](#), 2016

- The national average annual salary for production employees is well above the national private-sector average at \$82,117.<sup>28</sup>
- In 2013, the film and television sector generated \$16.3 billion in exports worldwide and a trade surplus of \$13.1 billion – larger than the surpluses run by the telecommunications, legal, health-related, or technology sectors.<sup>29</sup>
- The U.S. motion picture industry is dominated by small businesses with 84% of entertainment companies employing fewer than 10 people.<sup>30</sup>
- A scripted series can use more than 750 local suppliers and vendors in one season<sup>31</sup> and the average television series employs between 100 and 175 cast and crewmembers.<sup>32</sup>
- The positive impact of movie and television production reaches every state.<sup>33</sup>
  - Arizona: Film and television supports 8,838 jobs and \$340.4 million in wages annually.<sup>34</sup>
  - California: The motion picture industry is the fifth highest-ranking employer in Southern California.<sup>35</sup> In 2011, the film and television industry directly employed 191,000 workers. In 2009, the entertainment industry’s wages and salaries payroll was \$23.2 billion.<sup>36</sup> In one year, the total economic output of the California film industry workforce can exceed \$62 billion.<sup>37</sup>
  - Florida: Film and television supports 28,029 jobs and \$1.61 billion in wages annually.<sup>38</sup>
  - Georgia: Georgia outpaced previous frontrunner, California as the top location for feature film production in 2016.<sup>39</sup> The film and television industry had a statewide economic impact of more than \$7 billion during the 2016 fiscal year.<sup>40</sup> The industry supports 24,161 jobs and \$1.68 billion in wages annually.<sup>41</sup> The state has become the third largest film and television production center after California and New York with a reported \$2 billion in direct production spending in fiscal year 2016, according to the Georgia Department of Economic Development. Furthermore, Georgia’s IATSE Local 479’s membership grew almost 10x more in 2015 than it did in 2005.
  - Illinois: Film and television supports 20,346 jobs and \$1.05 billion in wages annually.<sup>42</sup> The TV and film money spent on goods and services, which includes wages paid to Illinois residents, was an estimated \$330 million in 2015.<sup>43</sup>
  - Louisiana: Production spending in the state increased 970%, topping \$863 million, since the state introduced its incentive program in 2003, according to Louisiana

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<sup>28</sup> [Copyright Industries in the U.S. Economy](#), 2016

<sup>29</sup> [2015 MPAA Fact Sheet](#), derived from U.S. Bureau of Labor Statistics (BLS), 2015

<sup>30</sup> [Film and Television Tax Credit Programs](#), October 2016

<sup>31</sup> Warner Brothers, 8.7.14

<sup>32</sup> Warner Brothers, 8.7.14

<sup>33</sup> [2015 MPAA Fact Sheet](#), derived from U.S. Bureau of Labor Statistics (BLS), 2015

<sup>34</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>35</sup> [Why Support Filming in California](#), 2016

<sup>36</sup> [Film and Television Tax Credit Programs](#), October 2016

<sup>37</sup> [Why Support Filming in California](#), 2016

<sup>38</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>39</sup> [2016 Feature Film Study](#), 2017

<sup>40</sup> [2016 Feature Film Study](#), 2017

<sup>41</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>42</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>43</sup> [Illinois estimates \\$330 million spent by TV and films in 2015](#), 2.2.2016

Economic Development. Membership in IATSE Local 478 also increased 208% between 2005 and 2016.<sup>44</sup>

- Massachusetts: From 2006 to 2014, the state disbursed nearly \$550 million in tax credits to production companies. In return, the state generated approximately \$77 million in new revenue.<sup>45</sup>
- Minnesota: Film and television supports 7,648 jobs and \$282.4 million in wages annually.<sup>46</sup>
- According to the film offices of New Mexico and Albuquerque, the film industry put nearly \$290 million into New Mexico's economy in 2015. The state attracted 77 productions, 25 that had budgets of more than \$1 million.<sup>47</sup>
- New York: Film and television supports more than 200 productions, 94,957 jobs, and \$9.95 billion in wages annually.<sup>48</sup> Between 2009 and 2013, New York City's motion picture employment rose by 44% while the state's employment rose by 30%.<sup>49</sup>
- North Carolina: Film and television supports 11,600 jobs and more than \$576.1 million in wages annually.<sup>50</sup>
- Tennessee: Jobs in the entertainment industry have grown by 8% since 2010, with nearly 4,400 Tennesseans earning an average \$59,800 before benefits. That figure ranks 21.3% higher than the average wage of all industries in Tennessee. The state also ranks 7<sup>th</sup> in the country for employment in the entertainment industry.<sup>51</sup>
- Utah: The Sundance Institute spent over \$17 million putting on its 2017 film festival, generating an economic impact of over \$150 million and contributing an estimated \$14 million in state and local tax revenue. Every year, the festival creates around 2,800 jobs for Utah residents, generating nearly \$80 million in earnings for its employees.<sup>52</sup>

➤ Specifically, each film and television production significantly impacts local economies.

*California:*

- Enacted in January 2015, California's new and expanded Film & Television Tax Credit Program 2.0 is projected to generate \$1.5 billion in direct in-state spending, including \$600 million in below-the-line, or qualified, wages.<sup>53</sup>
- In aggregate, California film and television projects that received \$675 million in tax credits are estimated to spend at least \$5.5 billion directly, including an estimated \$1.9 billion in qualified below-the-line wages.<sup>54</sup>
- The hours worked by members of California's below-the-line unions rose 12.45% for the first quarter of 2016 compared to the same period last year. Furthermore, SAG-AFTRA employment data indicates that background actors working in scripted film

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<sup>44</sup> [Film and Television Tax Credit Programs, October 2016](#)

<sup>45</sup> [ACTION! Film workers make their case to keep industry tax credit](#), 2.17.17

<sup>46</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>47</sup> [NM film industry shining star](#), 1.27.16

<sup>48</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>49</sup> [Film and Television Tax Credit Programs, October 2016](#)

<sup>50</sup> [State-By-State Film & Television Economic Contribution](#), 2016

<sup>51</sup> [Tennessee's film industry experiencing significant growth](#), 2.19.17

<sup>52</sup> [The Sundance Economy: How Robert Redford's Film Festival Remakes Utah Every Year](#), 6.14.17

<sup>53</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>54</sup> [Film and Television Tax Credit Programs](#), 2016



and television rose 19.7% in daily employment from the first quarter of 2015 compared to the same quarter in 2016.<sup>55</sup>

- California’s Teamsters Local 399 reports that members are working full-time for the first time since 2007, and, as a result, additional (non-member) workers are being hired “off permit.”<sup>56</sup>
- California’s IATSE Local 44 hasn’t experienced substantial membership growth since the mid-1990s. However, the first quarter of 2016 saw a 4.9% growth in membership – breaking the previous trend.<sup>57</sup>
- From January 2015 to January 2016, non-farm payroll jobs in California increased 2.8%, according to Employment Development Department data.<sup>58</sup>
- FilmL.A., the not-for-profit film office serving the Greater Los Angeles region, reported a 12% increase in on-location feature film production and a 4.6% increase in on-location TV shoots in 2016 compared to the same period in 2015.<sup>59</sup>
- 11 TV projects receiving an allocation of tax credits from California’s Program 2.0 are projected to spend an estimated \$171 million in qualified wages for fiscal year 2016-17.<sup>60</sup>
- 26 independent and non-independent feature films selected to receive \$108 million in tax credits in California are projected to spend \$324 million in qualified wages.<sup>61</sup>
- California’s Program 2.0 encourages productions to take advantage of locations throughout the state. Data show that when productions film on-location outside the Los Angeles area, they typically spend \$50,000 to \$100,000 per day in the local region. This benefits many small businesses such as grocers, hardware stores, gas stations, hotels, and many other retail businesses, as well as local hires such as catering and construction. In addition, such spending impacts local governments directly with payments to local police and fire departments, as well as revenue from local permit fees.<sup>62</sup>
- In California, the average one-hour drama pilot can directly employ 150-170+ people. FilmL.A. estimates that approximately \$296 million was spent on TV pilot production in Los Angeles during the 2015-16 development cycle.<sup>63</sup>
- An average \$70 million feature film generates \$10.6 million in California state sales and income taxes.<sup>64</sup>
- Each season of *Modern Family* contributes an estimated \$20 million to the Los Angeles economy.<sup>65</sup>
- Netflix’s show *13 Reasons Why* spent \$37,000,000 in California’s Marin County from 2015 to 2016.<sup>66</sup>

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<sup>55</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>56</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>57</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>58</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>59</sup> [Los Angeles Location Film and TV Shoots Jump](#), 2017

<sup>60</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>61</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>62</sup> [Film and Television Tax Credit Programs](#), 2016

<sup>63</sup> [2016 TV Pilot Report](#), 2016

<sup>64</sup> [Film and Television Tax Credit Programs](#), October 2016

<sup>65</sup> [The “Modern Writers” Behind L.A.’s \*Modern Family\*](#), 9.27.12

<sup>66</sup> [Film and Television Tax Credit Programs](#), October 2016

- *American Sniper, Argo, Her, Hirokin, Hit the Floor, Jackass, and Priest* contributed to \$1,500,000 in location spending in San Bernardino County from 2009 to 2016.<sup>67</sup>
- HBO's *Westworld* spent \$107 million on production in California and employed 482 cast and crew members for its first season, according to data from the California Film Commission.<sup>68</sup>

#### Georgia:

- In Georgia, the film and television industry directly employs 25,700 people and pays more than \$1.7 billion in wages. There are over 2,700 motion picture and television industry businesses in the state, including 1,822 production-related companies.<sup>69</sup>
- The production of *Diary of a Wimpy Kid: The Long Haul* spent over 200 days filming in Georgia and generated over \$14 million in local economic activity. Nearly 2,000 people worked on the film, who brought home more than \$7.8 million in wages.<sup>70</sup>
- The production of *Selma* spent \$470,000 on in-state wardrobe purchases, hardware, and other supplies in Georgia.<sup>71</sup>
- During its nearly 200 days of production in the state of Georgia, *The Fate of the Furious* contributed over \$65 million to the local economy and employed over 1,600 local workers, who took home more than \$25 million in wages. The production spent over \$17.6 million on local rentals and purchases for set direction, production, and other supplies; over \$4.3 million on hardware and lumber supplies; more than \$3.2 million on lodging; over \$2 million on catering, bakery goods and other food items; and more than \$2.7 million on transportation, including truck and car rentals.<sup>72</sup>
- Popular TV shows like *The Walking Dead* attract tourists to Georgia when fans flock to see filming sites.<sup>73</sup>

#### Hawaii:

- In Hawaii, productions like *Jurassic World, Hawaii Five-O, and Snowden* helped employ more than 2,200 people and paid more than \$100 million in wages.<sup>74</sup>
- *Kong: Skull Island* generated \$70.5 million for the state's economy during the 42 days it spent filming in Oahu and the production hired over 400 local workers. During the film crew's stay in Hawaii, the production spent more than \$8 million on local rentals and purchases for set decoration, production, and other supplies; more than \$2 million on transportation; nearly \$2 million on local catering and food for the cast and crew; more than \$2 million on hardware and lumber supplies; and nearly \$5 million on lodging.<sup>75</sup>

#### Illinois:

- In Illinois, the film and television industry directly employs more than 19,000 people and pays over \$1 billion in wages. Recent productions in the state include

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<sup>67</sup> [Film and Television Tax Credit Programs](#), October 2016

<sup>68</sup> [2016 TV Pilot Report](#), 2016

<sup>69</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>70</sup> [Production of 20th Century Fox's \*Diary of a Wimpy Kid: The Long Haul\* Contributed Over \\$14 Million to the Georgia Economy](#), 5.19.17

<sup>71</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>72</sup> [Production of \*The Fate of the Furious\* press release \(MPAA\)](#), 4.13.17

<sup>73</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>74</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>75</sup> [Kong Brings \\$70 million to Hawaii](#), 3.10.17



*Barbershop: The Next Cut: Southside with You: Empire: Chicago Fire; and The Girlfriend Experience.*<sup>76</sup>

**Louisiana:**

- During the making of *The Big Short*, the production spent \$8.8 million and hired nearly 3,000 employees in New Orleans, where the film was shot.<sup>77</sup>

**Maryland:**

- The Maryland Film Office reports that production of the first three seasons of *House of Cards* contributed \$330 million to the Maryland economy.<sup>78</sup>
- The second season of HBO's *Veep* had an economic impact of over \$40 million on the State of Maryland.<sup>79</sup>

**Massachusetts:**

- In Massachusetts, the productions of *Black Mass* and *Ghostbusters* contributed over \$820,000 on car rentals, nearly \$560,000 on wardrobe purchases, and over \$452,000 on catering and food.<sup>80</sup>

**Michigan:**

- The production of Paramount Pictures' *Transformers: The Last Knight* led to a major boost to Michigan's local economy, according to recent data from the studio. The film generated over \$34 million in local economic activity – hiring over 700 local workers, who took home more than \$11 million in wages.<sup>81</sup>

**New Mexico:**

- *Independence Day: Resurgence* spent more than \$44 million in New Mexico communities, employing over 5,750 local workers and paying more than \$19 million in wages.<sup>82</sup>
- Each episode of *Breaking Bad* added \$1 million to the Albuquerque economy.<sup>83</sup>

**New York:**

- In 2015, New York was home to more than 100 TV series and over 150 movies. The state's film and television industry directly employs nearly 90,000 people and pays more than \$10.4 billion in wages.<sup>84</sup>
- In New York, the production of HBO's *Vinyl* hired more than 800 local vendors and Marvel's *Daredevil* and *Jessica Jones* hired more than 900 local businesses.<sup>85</sup>
- Post-production contributes meaningfully to the New York State economy, with 20% of all US-based post-production firms calling New York home. Post-production in the state generates 23,310 jobs, with the average income for post-production being \$83,400.<sup>86</sup>

**North Carolina:**

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<sup>76</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>77</sup> [Hollywood South News with Jabari: Local filmmakers getting into action!](#), 1.29.16

<sup>78</sup> [Harford expects to benefit as 'House of Cards' production returns for fifth year](#), 2.01.16

<sup>73</sup> [Economic and Fiscal Impacts of the Film Production Tax Credit in Maryland](#), 2.10.14

<sup>80</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>81</sup> [Production of Paramount Pictures' Transformers \(MPAA\)](#), 6.22.17

<sup>82</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>83</sup> [Breaking Bad has been good to Albuquerque, New Mexico](#), 8.7.13

<sup>84</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>85</sup> [State-By-State Film & Television Economic Contribution \(MPAA\)](#), 9.2.16

<sup>86</sup> [PNYA Economic Impact Study](#), December, 2016

- In its first two seasons, the Showtime series *Homeland* generated \$65 million for the economy of Charlotte, North Carolina.<sup>87</sup>
- A scripted series can use more than 750 local suppliers and vendors in one season,<sup>88</sup> and the average television series employs between 100 and 175 cast and crewmembers.<sup>89</sup>

*Pennsylvania:*

- The filming of *Fences* in Pittsburgh generated \$9.4 million locally, including the hiring of more than 900 local workers and payment of \$5.6 million in wages. These hires included extras, security, and office personnel. More than \$900,000 was spent on local rentals and purchases for set decorations, production, and other supplies. Furthermore, nearly \$700,000 was spent on transportation, more than \$380,000 was spent on catering and food, over \$360,000 was spent on lodging, and more than \$100,000 was spent on hardware and lumber supplies.<sup>90</sup>

*Tennessee:*

- In 2014, the Convention and Visitors Corporation surveyed overnight visitors to Nashville and found that nearly 20% came to visit the city because of the *Nashville* television series. The tourism resulting from viewership of *Nashville* generated an estimated \$486.7 million in visitor spending and \$34 million in state sales tax revenue over the three years following the show's premiere.<sup>91</sup>
- The global recording industry is experiencing modest growth after more than a decade of significant decline. In 2016, the global recorded music market grew by 5.9%, the fastest rate of growth since IFPI began tracking the market in 1997.<sup>92</sup>
- Record companies are the primary investors in music, spending over \$4.5 billion, or about 27% of their revenues, annually on artists and repertoire (A&R) and marketing. This is a larger share of revenues invested in A&R than most other sectors invest in their own research and development.<sup>93</sup>
- A new report establishes New York as one of the largest, if not the largest, music ecosystems in the world. In New York City, the industry supports 60,000 jobs, \$5 billion in wages, and \$21 billion in economic output. The music sector is growing faster than the rest of the local economy – with music-related jobs and wages growing at annual rates of 4 and 7% respectively, compared to 3 and 5% in the city overall.<sup>94</sup>
- With over 70 digital music startups, New York City has twice as many digital music companies as San Francisco and Los Angeles.<sup>95</sup>
- \$400-500 million of tourism spending can be directly attributed to attending music-related events in New York.<sup>96</sup>

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<sup>87</sup> [Showtime's \*Homeland\* Wraps Filming in Charlotte](#), 10.15.13

<sup>88</sup> Warner Brothers, 8.7.14

<sup>89</sup> Warner Brothers, 8.7.14

<sup>90</sup> ['Fences' film shoot generated \\$9.4 million for Pittsburgh businesses, hires, 1.5.17](#)

<sup>91</sup> [Tennessee's film industry experiencing significant growth](#), 2.19.17

<sup>92</sup> [Global Music Report 2017](#), 4.25.17

<sup>93</sup> [Global Music Report 2017](#), 4.25.17

<sup>94</sup> [New York Claims to be the Center of the Music Industry Universe](#), 3.8.17

<sup>95</sup> [New York Claims to be the Center of the Music Industry Universe](#), 3.8.17

<sup>96</sup> [New York Claims to be the Center of the Music Industry Universe](#), 3.8.17

**The piracy ecosystem is enormous in scope and has global financial repercussions for all creative industries.**

- Piracy is a for-profit criminal industry with a significant negative impact on the creative economy.
  - There is a direct link between piracy and organized crime.
  - Piracy is theft that is orchestrated by for-profit criminal enterprises and is a multi-hundred million-dollar business.<sup>97</sup>
  - A 2009 RAND Corporation study found that “[t]here is compelling evidence of a broad and continuing connection between film piracy and organized crime.”<sup>98</sup>
  - A 2010 Congressional Research Service study found that “organized criminals are becoming increasingly involved” in piracy and counterfeiting crimes.<sup>99</sup>
  - In Australia, 21% of adults 18 – 64 have admitted to some form of piracy.<sup>100</sup>
- The economic harm from piracy is large and demonstrable.
  - An academic review of the empirical literature on piracy’s impact by professors at Carnegie Mellon University concluded: “The vast majority of the literature (particularly the literature published in top peer-reviewed journals) finds evidence that piracy harms media sales.”<sup>101</sup>
  - A joint study by professors at Carnegie Mellon and Wellesley College found that legitimate digital sales of major films increased by 6.5 to 8.5% in the four months after the illegal website Megaupload was shut down.<sup>102</sup>
- The volume of online piracy is enormous.
  - As streaming has become the preferred means of consuming content, pirate sites have followed suit, with the number of pirate sites that stream video in 2014 increasing by 40% from 2013.<sup>103</sup>
  - The cost of piracy to Netflix, Amazon, and their streaming peers will top \$50 billion between 2016 and 2022.<sup>104</sup>
  - In 2018, the United States will suffer the biggest piracy losses, followed by China, Brazil, India, the U.K., South Korea, and Mexico.<sup>105</sup>
- Streaming piracy devices and apps facilitate access to millions of pieces of content.
  - Expensive equipment is no longer needed and bulky machines have been replaced by much smaller HDMI-capable devices.<sup>106</sup>
  - Nearly 95% of television piracy traffic is driven by streaming piracy devices and apps.<sup>107</sup>

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<sup>97</sup> [Good Money Still Going Bad: Digital Thieves and the Hijacking of the Online Ad Business](#), 2015

<sup>98</sup> [Film Piracy and Its Connection to Organized Crime and Terrorism](#), 2009

<sup>99</sup> [Organized Crime in the United States: Trends and Issues for Congress](#), 12.22.10

<sup>100</sup> [Creative Content Australia 2017 Piracy Research Study](#), 12.1.17

<sup>101</sup> [Assessing the Academic Literature Regarding the Impact of Media Piracy on Sales](#), 8.19.12

<sup>102</sup> [Gone in 60 Seconds](#), March 2013

<sup>103</sup> [Good Money Still Going Bad: Digital Thieves and the Hijacking of the Online Ad Business](#), 2015

<sup>104</sup> [Piracy Set to Cost Streaming Players More Than \\$50 Billion, Study Says](#) 11.14.17

<sup>105</sup> [Piracy Set to Cost Streaming Players More Than \\$50 Billion, Study Says](#) 11.14.17

<sup>106</sup> [Police Conducting “World’s Largest” Pirate Box Crackdown](#), 5.28.16

<sup>107</sup> [Global Internet Phenomena Spotlight: Subscription Television Piracy](#), 2017

- Typically, in small set-top or dongle format, these products can be loaded with media software from Google’s Play Store or invariably “side-loaded” with more unofficial products such as customized versions of Kodi, Showbox, and Popcorn Time.<sup>108</sup>
- Some sell so-called “fully-loaded Kodi boxes”, which are preloaded with third-party add-ons that can access pirated content.<sup>109</sup>
- Nearly 9% of North American households have, within the home, a device that is running Kodi software to stream piracy applications.<sup>110</sup>
- A recent report from Sandvine found that more than 75% of users who access pirated content were using streaming piracy devices and apps.<sup>111</sup>
- Research from Australia has shown that 31% of Australians aged 12 – 64 watch movies or TV shows through a set top box. One in four teens use streaming piracy devices to access pirated content. Amongst adults, that figure is one in five.<sup>112</sup>
- In addition to peer-to-peer file sharing and streaming pirate sites, cyberlockers are another piece of the piracy ecosystem.
  - A cyberlocker is a third-party online service that supports the large-scale peer-to-peer distribution of files around the world, placing few limits on who can download or stream a file.
  - Visitors to the top 10 streaming cyberlocker sites increased by 15.8%, from 86 million visitors at the end of Q3 2016 to 99.6 million at the end of Q4 2016. Visitors to the top 10 direct download cyberlocker sites increased by 6% unique monthly visitors from 68.7 million at the end of Q3 2016 to 72.8 million at the end of Q4 2016.<sup>113</sup>
  - The top 30 cyberlockers make nearly \$100 million per year from stolen creative works.<sup>114</sup>
  - The most profitable direct download cyberlocker made an annual profit of \$15.2 million with an 86.1% profit margin, according to a study conducted by the Digital Citizens Alliance and NetNames.<sup>115</sup>
  - On average, premium direct download accounts cost \$10.57/month with discounts for users who sign up for 6 months or a year. Premium streaming accounts are less expensive, averaging \$8.25/month.<sup>116</sup>
  - Cyberlockers set up incentives for users to upload unauthorized content files and then encourage others to download them, making money by selling advertisements around the content or premium access subscriptions.<sup>117</sup>
    - Cyberlocker sites made \$96.2 million in total annual revenue across 30 sites, or \$3.2 million per site. One site made \$17.6 million.<sup>118</sup>

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<sup>108</sup> [Police Conducting “World’s Largest” Pirate Box Crackdown](#) 5.28.16

<sup>109</sup> [Piracy Fighters Battle Kodi ‘Epidemic’](#) 9.29.16

<sup>110</sup> [Global Internet Phenomena Spotlight: Subscription Television Piracy](#), 2017

<sup>111</sup> [Video and Television Piracy: Ecosystem and Impact](#), 2017

<sup>112</sup> [Creative Content Australia 2017 Piracy Research Study](#), 12.1.17

<sup>113</sup> [NetNames’ Piracy Trends: Fourth Quarter 2016](#), 3.10.17

<sup>114</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>115</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>116</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>117</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>118</sup> [Behind the Cyberlocker Door](#), 9.18.2014

- Profit margins for cyberlockers can reach as high as 86%, since there is a high demand for stolen content and little to no overhead since their content is stolen.<sup>119</sup>
- The overwhelming use of cyberlockers is for content theft. Analysis of a sample of the files from the cyberlocker sites found that at least 78.6% of files on direct download sites and 83.7% of files on streaming sites were unauthorized copies of books, films, television shows, and games.<sup>120</sup>
- In several instances, cyberlockers generate more internet traffic than the most popular sites. For example, two of the most popular cyberlockers, 4Shared and Putlocker, have a higher Alexa Ranking than [WSJ.com](#), [USAToday.com](#), [Target.com](#), or [Nike.com](#).<sup>121</sup>

**Piracy affects every creative industry. Here are statistics for film, television, music, and book publishing.**

- Film
  - All eight Best Picture contenders from the Oscars® 2016 were available on file-sharing sites by the time of the Academy Awards®, according to the pirate-tracking firm Tecxipio, up 59% from 2015.<sup>122</sup>
  - The most pirated film of 2015, according to Tecxipio, was *Interstellar*, which was downloaded illegally 47 million times – a 55% increase from 2014’s favorite, *The Wolf of Wall Street*.<sup>123</sup>
  - Over 10 million people worldwide have pirated *Expendables 3*, which was leaked online weeks before its release.<sup>124</sup>
  - *Dallas Buyers Club* grossed over \$50 million worldwide theatrically, which translates to approximately 7 million tickets sold. Since its release, there have been roughly 22 million piracy transactions<sup>125</sup> – 300% higher than paid ticket sales. If 5% of the pirated transactions had been paid theatrical ticket sales, the film would have earned an additional \$7.7 million. If just 5% of the pirated transactions had been paid downloads, and at a conservative price of \$3.00 per download, the film would have earned an additional \$3.3 million.<sup>126</sup>
  - Piracy impacts the amount of films released and the type of movies being made:
    - Since 2006, the number of films released each year by major film companies has dropped by 33% – from 204 movies released in 2006 to just 147 released in 2015.<sup>127</sup>
    - Studios are increasingly turning to sequels and remakes with built-in audiences, rather than taking risks on new projects and independent films.<sup>128</sup>

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<sup>119</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>120</sup> [Behind the Cyberlocker Door](#), 9.18.2014

<sup>121</sup> [Alexa Rankings](#), 2017

<sup>122</sup> [After Oscar Piracy, Studios Step Up Push for Digital Screeners](#), 1.27.16

<sup>123</sup> [No, Piracy Is Not the Sincerest Form of Flattery](#), 1.14.16

<sup>124</sup> [Expendables 3 Producer: We Want to Go After 10 Million Who Illegally Downloaded Movie](#), 9.18.14

<sup>125</sup> [Online Piracy, Ad Fraud Cost U.S. Media Firms \\$8.2B a Year: Report](#), 12.1.15

<sup>126</sup> [Box Office Mojo: Dallas Buyers Club](#), 2016

<sup>127</sup> [2015 Theatrical Market Statistics report, MPAA](#), 2015

<sup>128</sup> [Development Slates Shrinking As Film Remakes, Sequels Dominate](#), 6.27.13

- Independent films are often a gateway for new and young talent to launch their careers. A decrease in profit for independent film limits these opportunities. Here are a few current blockbuster directors who started in independent film:
  - ❖ Kathryn Bigelow (*The Hurt Locker, Zero Dark Thirty*)
  - ❖ Alfonso Cuarón (*Y Tu Mama Tambien, Gravity*)
  - ❖ Paul Greengrass (*Bloody Sunday, Jason Bourne*)
  - ❖ James Gunn (*Super, Guardians of the Galaxy*)
  - ❖ Doug Liman (*Swingers, The Bourne Identity*)
  - ❖ Christopher Nolan (*Memento, Interstellar*)
  - ❖ David O. Russell (*Spanking the Monkey, Silver Linings Playbook*)
  - ❖ Steven Soderbergh (*Sex, Lies, and Videotape, Oceans Twelve*)
  - ❖ Colin Trevorrow (*Safety Not Guaranteed, Jurassic World*)
- The average initial piracy-free window for English-language film releases is tightening. In Q4 2016, the window was 8.5 days, which is 5 days shorter than the 13.5-day piracy-free window of Q4 2015. Furthermore, the average initial piracy-free window for a release in any language was 5 days in Q4 2016, which is 4 days shorter than the nine-day equivalent piracy-free window in Q4 2014.<sup>129</sup>
- The window between the worldwide theatrical release and the earliest pirated release sourced from a digital copy was 65.5 days in Q4 2016, 11.5 days longer than the 54-day window in Q4 2015.<sup>130</sup>
- Television:
  - Over 6.5% of households in North America are accessing known subscription television piracy services.<sup>131</sup>
  - The threat to legitimate business models comes from a comprehensive piracy economy that addresses/enables three consumer ‘use cases’: video on demand, catch-up, and live video.<sup>132</sup>
  - For the past five years, HBO’s *Game of Thrones* has topped the list of most-downloaded TV shows through BitTorrent. The highest number of people actively sharing an episode across several torrents was 350,000 at its peak, which happened directly after the season finale became available online legally.<sup>133</sup>
  - The week after *Breaking Bad* won the 2014 Emmy® for Best Drama Series, the number of users illegally downloading the show grew fivefold, despite the fact that the entire series was legally available to stream on Netflix.<sup>134</sup>
  - Half a million people downloaded the *Breaking Bad* finale within 12 hours of its original airing, mainly in countries where it was available on TV or other legal means the next day.<sup>135</sup>
  - In August 2014, *Orange is the New Black* was the second-most pirated show in the world, despite the entire series being legally available to stream on Netflix at the same time. It was downloaded illegally 60 million times over the first six months of 2014.<sup>136</sup>

<sup>129</sup> [NetNames’ Piracy Trends: Fourth Quarter 2016](#), 3.10.17

<sup>130</sup> [NetNames’ Piracy Trends: Fourth Quarter 2016](#), 3.10.17

<sup>131</sup> [Global Internet Phenomena Spotlight: Subscription Television Piracy](#), 2017

<sup>132</sup> [Video and Television Piracy: Ecosystem and Impact](#), 2017

<sup>133</sup> [Game of Thrones Most Torrented TV-Show of 2016](#), 12.26.16

<sup>134</sup> [Breaking Bad Piracy Rates Soar Five Fold After 2014 Emmy Wins](#), 9.2.14

<sup>135</sup> [Breaking Bad Final Episode Illegally Downloaded 500,000 Times in 12 Hours](#), 9.30.12

<sup>136</sup> [Orange Is the New Black is now the second-most pirated TV show in the world](#), 8.24.14



- The Season 7 premiere of *The Walking Dead* was illegally downloaded 600,544 times in the first 24-hours after it was aired. This number has gone up from the Season 6 premiere, which amassed 569,722 downloads in the 24-hour period after it aired.<sup>137</sup>
- According to the Writers Guild of America West, Hollywood screenwriter earnings slid 5.4% last year to \$313.9 million — the fifth straight year of decline — while TV writing earnings rose only 2.3%.<sup>138</sup>
- In the last 12 months, the Federation Against Copyright Theft (FACT) has seen password sharing cases involving subscription pay TV services rise from 6% to over 18%.<sup>139</sup>
- Music:
  - Legal audio streaming surpassed video streaming in 2016 and Nielsen estimates audio accounts for 54% of the share of streaming, which is up 44% through the first six months of 2015.<sup>140</sup>
  - In 2014, economics consultancy Frontier Economics recently estimated that U.S. internet users annually consume between \$7 and \$20 billion worth of digitally pirated recorded music.<sup>141</sup>
  - While the music industry has increased digital revenues by 1,000% from 2004 to 2010, digital music theft has been a major factor behind the overall global market decline of around 31% in the same period.<sup>142</sup>
  - In 1999, music industry revenue totaled \$28 billion worldwide.<sup>143</sup> By 2016, it had fallen to \$15.7 billion.<sup>144</sup> This represents a 43% decline in revenue.
  - While sales from ad-supported, on-demand streaming grew 24% to \$195 million in the first half of 2016, according to a report from the Recording Industry Association of America, streaming services rake in billions of dollars for themselves but pay only relative pennies to artists and labels.<sup>145</sup>
  - A study by MUSO, a content protection and market analytics company, has shown that the amount of music downloaded on illegal piracy sites grew by 16.5% in the second half of 2015 compared to the year's opening six months.<sup>146</sup>
    - In the same study, MUSO found that the United States was number one in the list of countries by visitor traffic to pirate sites to download music illegally.<sup>147</sup>
    - The study also found that the US represented 10% of global traffic to piracy sites for illegitimate music downloads.<sup>148</sup>
  - Stream ripping, which involves turning a song played on a streaming service into a permanent download, has become the most common way people illegally download

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<sup>137</sup> [Walking Dead Piracy on the Rise Since Last Season](#), 10.25.16

<sup>138</sup> [Hollywood Screenwriter Earnings Fall 5.4%, TV Gains 2.3%](#), 7.7.15

<sup>139</sup> [Intellectual Property Office's Crime Report](#), 2014/2015

<sup>140</sup> [Neilson's 2016 Mid-Year Highlights and Analysis](#), 7.6.16

<sup>141</sup> [Music Business Worldwide](#), 12.6.14

<sup>142</sup> [Music Business Worldwide](#), 12.6.14

<sup>143</sup> [IFPI Global Music Report](#), 2017

<sup>144</sup> [IFPI Global Music Report](#), 2017

<sup>145</sup> [The Music Industry Is Finally Making Money on Streaming](#), 9.19.16

<sup>146</sup> [Music Business Worldwide](#), 1.21.16

<sup>147</sup> [Music Business Worldwide](#), 1.21.16

<sup>148</sup> [Music Business Worldwide](#), 1.21.16

music. According to research conducted by IPSOS in 2016, 30% of all internet users had engaged in stream ripping at least once in the past six months.<sup>149</sup>

- Unlicensed stream ripping companies profit from advertising and do not share the revenue with artists.<sup>150</sup>
- The most heavily used stream ripping site, YouTube-MP3.org, has an estimated 60 million unique users per month.<sup>151</sup>
- IFPI runs a 24/7 alert and takedown site for members and national groups that monitors popular copyright-infringing sites and social networks. In 2016, 19.2 million URLs were identified as hosting infringing content and 339 million requests were sent to Google requiring it to “delist” infringing sites.<sup>152</sup>
- According to the Nashville Songwriters Association International, the number of full-time songwriters in Nashville has dropped 80% since 2000. This was a new low point since data tracking began in 1991.<sup>153</sup>
- According to the Bureau of Labor Statistics, there were 38,900 people in the United States classified as “Musicians and Singers” in 2014. This is down 28% from 53,940 in 2002.<sup>154</sup>
- **Book and E-Book Publishing:**
  - One-third of publisher revenues now come from digital sales, but the rise of the digital market means more cases of online infringement.
  - According to the Association of American Publishers, the publishing industry as a whole has lost \$80 to \$100 million dollars to online piracy annually.<sup>155</sup>
  - From 2014 to 2015, the Publishers Association requested Google take down 1.75 million URLs linking to copyright protected material from its search results, according to Google’s Transparency Report.<sup>156</sup>
  - An investigation conducted by the Publishers Association revealed that over 80% (and in some cases over 90%) of the material on seven overseas sample pirate websites infringe copyright.<sup>157</sup> From 2009 to 2013, the number of e-book Internet piracy alerts that the Authors Guild of America has received from their membership had increased by 300%.<sup>158</sup>

### **Pirate websites spread malware, spyware, and viruses.**

- Baiting internet users by stealing their personal information with malware is an estimated \$70 million per year business that costs consumers \$2.3 billion, according to consumer reports.<sup>159</sup>
- The U.S. Department of Justice reported 17.6 million cases of identity theft in 2014, with financial losses totaling over \$24.7 billion as a result of malware.<sup>160</sup>

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<sup>149</sup> [Global Music Report 2017](#), 4.25.17

<sup>150</sup> [Global Music Report 2017](#), 4.25.17

<sup>151</sup> [Global Music Report 2017](#), 4.25.17

<sup>152</sup> [Global Music Report 2017](#), 4.25.17

<sup>153</sup> [Nashville's musical middle class collapses](#), 1.28.15

<sup>154</sup> [U.S. Bureau of Labor Statistics \(BLS\): Occupational Employment and Wages](#), 2002/2014

<sup>155</sup> [Publicist of the Year for Online Book Piracy Awareness Leads Crusade](#), 3.22.16

<sup>156</sup> [Intellectual Property Office’s Crime Report](#), 2014/2015

<sup>157</sup> [Intellectual Property Office’s Crime Report](#), 2014/2015

<sup>158</sup> [Publicist of the Year for Online Book Piracy Awareness Leads Crusade](#), 3.22.16

<sup>159</sup> [Digital Bait](#), 2015

<sup>160</sup> [Bureau of Justice Statistics: Victims of Identity Theft](#), 2014

- The “Digital Bait” study, commissioned by Digital Citizens Alliance and conducted by RiskIQ, found that one out of every three of the sites contained malware. Visitors to content theft sites were 28 times more likely to get malware from these sites than from mainstream websites or licensed content providers.<sup>161</sup>
- RiskIQ estimated that on a monthly basis, 12 million U.S. users were exposed to malware from the sites they visited in the Sample Content Theft Group that is based on Alexa traffic data and RiskIQ’s malware data. They concluded the operators of these sample pirate sites generate approximately \$3.3 million in revenue per year.<sup>162</sup>
- Most worrisome is merely visiting a pirate site can put computers at risk. According to the same “Digital Bait” study, 45% of the malware was delivered via “drive-by downloads,” which secretly download to the user’s computer.<sup>163</sup>
- Research from Australia shows that amongst persistent pirates, 47% of teens and 59% of adults have contracted a virus or malware by clicking on an ad or pop-up, or from streaming or downloading movies or TV from a pirate site.<sup>164</sup>

**Advertisers, ad agencies, and online ad networks play a role in supporting and enabling online piracy.**

- Advertising funds two-thirds of television live-streaming pirate sites.<sup>165</sup>
  - A recent study found that in 2014 nearly 600 pirate sites generated an estimated \$209 million in revenue from advertising alone – a significant portion coming from major brands.<sup>166</sup>
  - Advertising provides about 86% of the revenues for file-sharing sites featuring illegally distributed content.<sup>167</sup>
  - Megaupload earned over \$25 million from online advertising during its operation.<sup>168</sup>
  - A recent report from Incopro analyzed the revenue sources for the 250 most popular pirate sites in the European Union and found that advertising is a key source of funding for 88% of them.<sup>169</sup>
  - A NetNames report that examined the top 30 cyberlocker sites found that all but one profited from advertising, in addition to subscription payments processed by major credit card companies.<sup>170</sup> On average, each direct download cyberlocker generated more than \$100,000 per month in advertising revenue, while streaming cyberlockers brought in 27% more revenue.<sup>171</sup>

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<sup>161</sup> [Piracy Sites Collect \\$70 Million a Year by Installing Malware](#), 12.9.15

<sup>162</sup> [Digital Bait](#), 2015

<sup>163</sup> [Digital Bait](#), 2015

<sup>164</sup> [Creative Content Australia 2017 Piracy Research Study](#), 12.1.17

<sup>165</sup> [The Six Business Models of Copyright Infringement](#), 6.27.12

<sup>166</sup> [Good Money Still Going Bad: Digital Thieves and the Hijacking of the Online Ad Business](#), 5.1.15

<sup>167</sup> [Report links Google, Yahoo to internet piracy sites](#), 1.2.13

<sup>168</sup> [Megaupload Indictment](#), 1.5.12

<sup>169</sup> [Revenue Sources for Websites Making Available Copyright Content Without Consent in the EU](#), March 2015

<sup>170</sup> [Behind the Cyberlocker Door: A Report on the Cyberlocker Business and how Cyberlockers use Credit Card Companies to Make Millions](#), 9.18.14

<sup>171</sup> [Behind the Cyberlocker Door: A Report on the Cyberlocker Business and how Cyberlockers use Credit Card Companies to Make Millions](#), 9.18.14

- Seventeen of the NetNames report’s 30 investigated cyberlocker sites profited from advertising facilitated by just one advertising network – Propeller Ads Media.<sup>172</sup>
- Leading advertisers and agencies have acknowledged that they have a role to play in stopping piracy and have undertaken initial first steps.
  - The CEO of the Association of National Advertisers wrote in *Ad Age* magazine that “marketers must become more involved in the piracy issue [and] cannot allow our businesses and brands to supply financial life-blood or lend an air of legitimacy to illicit business models that threaten the well-being of creative industries worldwide.”<sup>173</sup>
  - In May 2012, the Association of National Advertisers and the American Association of Advertising Agencies called for industry action to reduce advertiser support for piracy.<sup>174</sup>
  - In July 2013, eight large digital ad networks agreed to take down individual ads after being notified they had appeared on verified pirate sites.<sup>175</sup>
  - The Internet Advertising Bureau has also called upon advertisers to address the matter in their Quality Assurance Guidelines, although the Bureau does not punish piracy violations as it does those involving child pornography or illegal pharmaceuticals.<sup>176</sup>
  - In 2015, the advertising community’s Trustworthy Accountability Group (TAG) announced that more than 30 major global brands – including American Express, Colgate-Palmolive, and Wal-Mart – had taken TAG’s Anti-Piracy Pledge and committed to taking commercially reasonable measures to keep their ads off pirate sites. They were joined by 22 leading ad agencies and groups – including OMD, Rocket Fuel, GroupM, and Starcom Mediavest Group – all pledging to take steps to keep their clients’ ads off pirate sites.
    - ❖ TAG was created by the American Association of Advertising Agencies (4A’s), the Association of National Advertisers (ANA), and the Interactive Advertising Bureau (IAB). As one of its main initiatives, TAG focuses on fighting internet piracy by encouraging brands and agencies to work with vendors that will certify that their advertising is not supporting the digital theft of creative work.

**Credit card companies are already blocking payments to online piracy sites.**

- MasterCard has worked with Interpol to block transactions that involve intellectual property theft. Recent efforts covered 100 countries, resulted in 79 arrests, and shut down 18,000 illegal websites.<sup>177</sup>

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<sup>172</sup> [Behind the Cyberlocker Door: A Report on the Cyberlocker Business and how Cyberlockers use Credit Card Companies to Make Millions](#), 9.18.14

<sup>173</sup> [Are You Protecting Your Marketing Investments From The Threat of Online Piracy](#), 8.6.13

<sup>174</sup> [Statement of Best Practices to Address Online Piracy and Counterfeiting](#), May 2012

<sup>175</sup> [MPAA Scoffs at New Anti Piracy Plan](#), 7.15.13

<sup>176</sup> [IAB Quality Assurance Guidelines](#), 7.25.13

<sup>177</sup> [MasterCard Anti-Piracy Policy](#)

- Visa has set up a procedure that allows creatives to report websites that are infringing on their intellectual property rights. Alongside law enforcement and copyright owners, Visa is working to block websites that use their payment platform to facilitate piracy.<sup>178</sup>

### **Search engines play a role in supporting and enabling online piracy.**

- Search engines are the main gateway to pirate websites.
  - Google processed over three million piracy removal requests per day in March 2016 — over 100,000 per hour.<sup>179</sup>
  - Each month, Google receives around 75 million DMCA takedown requests, which amount to 900 million DMCA requests per year.<sup>180</sup>
  - In May 2015, the British Phonographic Industry and the Recording Industry Association of America notified Google of their 200 millionth allegedly infringing URL, up from 100 million a little over a year earlier.<sup>181</sup>
  - 74% of consumers surveyed said they had used a search engine the first time they arrived at a pirate website.<sup>182</sup>
  - 58% of individuals who found pirated movies and television shows online did so through apparently innocent searches, such as entering a film or television show title or a generic phrase like “watch TV.”<sup>183</sup>
- Research has shown that search results affect consumers' legitimate viewing behavior.
  - In a controlled experiment, researchers from Carnegie Mellon showed that users are more likely to purchase legally when legal sites are prioritized over pirate sites in search results — and they're more likely to pirate when pirate links are promoted.<sup>184</sup>
  - A report from Carnegie Mellon University looked at site-blocking efforts in the U.K. to determine if the court-ordered measure had any effect on the behavior of consumers and piracy.
    - When 19 sites were blocked simultaneously, former users of these sites increased their usage of paid legal streaming sites by 12% on average, relative to the control group.<sup>185</sup>
    - “Light” users of blocked sites were redirected to paid streaming services at a rate of 3.5%.<sup>186</sup>
    - “Heavy” users of blocked sites saw an increase of 23.6% to paid streaming services.<sup>187</sup>
    - The Carnegie-Mellon study suggests if pirate sites can effectively be blocked, consumers will be more likely to seek legitimate sources for their content.

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<sup>178</sup> [Visa – Intellectual Property](#)

<sup>179</sup> [Google Transparency Report](#), 6.9.16

<sup>180</sup> [Google Had Over 75 Million Takedown Requests Last Month](#), 3.7.16

<sup>181</sup> [Music Industry Reports 200 Millionth Pirate Link to Google](#), 5.7.15

<sup>182</sup> [Understanding the Role of Search in Online Piracy](#), 9.18.13

<sup>183</sup> [Understanding the Role of Search in Online Piracy](#), 9.18.13

<sup>184</sup> [Do Search Engines Influence Media Piracy? Evidence from a Randomized Field Study](#), 9.12.14

<sup>185</sup> [The Effectiveness of Site Blocking as an Anti-Piracy Strategy](#), 6.3.15

<sup>186</sup> [The Effectiveness of Site Blocking as an Anti-Piracy Strategy](#), 6.3.15

<sup>187</sup> [The Effectiveness of Site Blocking as an Anti-Piracy Strategy](#), 6.3.15

- In the UK, the Police Intellectual Property Crime Unit (PIPCU) diverted over 11 million views from pirate sites to an official Police warning page.<sup>188</sup>
- In Australia, search engines, such as Google, are most mentioned by adults as the means to find illegal content online, and seem to be facilitating new means to reach alternate infringing sites and proxies when users encounter blocked sites.<sup>189</sup>
- Because search engines contribute to the problem, they should play a constructive role in solutions.
- Search engines have admitted that for-profit pirate websites are a problem. However, so far they have not acknowledged the crucial role that search plays in driving millions of users and billions of page views to these pirate sites. The traffic generated by search engines increases advertising revenue and subscriptions for pirate sites, which allows them to profit and thrive.<sup>190</sup>

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<sup>188</sup> [Intellectual Property Office's Crime Report, 2014/2015](#)

<sup>189</sup> [Creative Content Australia 2017 Piracy Research Study, 12.1.17](#)

<sup>190</sup> [Understanding the Role of Search in Online Piracy, 9.18.13](#)