How intermediary liability harms online investment & innovation.

June 2019
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copia NetChoice

Published June, 2019 by the Copia Institute and NetChoice.
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Summary

AS DEBATES HAVE INCREASED over the appropriate levels of liability that should be placed on internet platforms, there has been precious little research looking into the actual impact of strong intermediary and platform protections from liability on innovation and investment. This paper takes an initial look at different legal regimes across different times and regions to attempt to separate out the impact. By using cross-regional comparisons, as well as changes over time within certain countries, we explore the actual impact of different levels of platform protection and how it impacts investment in innovation. As an initial finding, it shows that in countries or regions with strong laws and standards that protect intermediaries from liability, there appears to be much greater investment into innovative companies, while taking away those protections can have a significant negative impact on investment and innovation.

Indeed, the report suggests that the broad immunity offered by Section 230 of the Communications Decency Act likely resulted in somewhere between two to three times greater total investment in internet platforms in the US as compared to the more limited protections offered in the EU under the E-Commerce Directive. Separately, the evidence strongly suggests that platform companies following the Section 230 regime in the US were 5 times as likely in the US to be be able to raise significant funds (over $10 million in venture capital) and nearly 10 times as likely in the US to raise massive funds (defined as over $100 million in venture capital) as compared to the EU.

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Introduction

LIABILITY STANDARDS FOR INTERNET PLATFORMS and intermediaries have been a hot topic lately. The laws around these concern whether or not a company which provides a service to end users should be, or is, legally liable for actions taken by the users of that platform. Around the globe, a variety of different standards are used, and these change over time as case law explores edge cases and as our understanding of the technology changes as well.

In the US alone, we have at least three different standards for intermediary liability. There is Section 230 of the Communications Decency Act, which immunizes platforms against being held liable for expression on their platforms (barring the law from holding the platform as the speaker, as well as barring platforms from being held liable for actions they take in moderating — or failing to moderate — content on the platform). There are various exceptions to CDA 230, including for violations of federal criminal statutes or for anything having to do with intellectual property law. Most recently, Congress added another exception to CDA 230 under a new law which awkwardly combined two bills, the Stop Enabling Sex Traffickers Act (SESTA) and Allow States and Victims to Fight Online Sex Trafficking Act (FOSTA), creating exceptions for sites that facilitate sex trafficking and prostitution.

Section 230 was first introduced by Congressman Chris Cox in response to a ruling in a NY court in the *Stratton Oakmont v. Prodigy* case.[1] In that case, the court found that Prodigy, an online service that offered a series of "message boards" on many different topics, could be held liable for the content users posted to those message boards if it was found to have done any moderation of the message boards at all. Rep. Cox realized that if such a ruling were left to stand, it would effectively kill off online message boards and other forums for users. In recent testimony[2] to the House Judiciary Committee, Cox explained his response to the Stratton Oakmont ruling:

> *In 1995, I was on a flight from California to Washington, DC during a regular session of Congress when I read a Wall Street Journal story about a New York Superior Court case that troubled me deeply. The case involved a bulletin board post on the Prodigy web service by an unknown user. The post said disparaging things about an investment bank. The bank filed suit for libel, but couldn't locate the individual who wrote the post. So instead, the bank sought damages from Prodigy, the site that hosted the bulletin board.*
>
> *Up until then, the courts had not permitted such claims for third-party liability. In 1991, a federal district court in New York held that CompuServe was not liable in circumstances like the Prodigy case. The court reasoned that CompuServe "had no opportunity to review the contents of the publication at issue before it was uploaded into CompuServe's computer banks," and therefore was not subject to publisher liability for the third party content.*
>
> *But in the 1995 New York Superior Court case, the court distinguished the CompuServe precedent. The reason the court offered was that unlike CompuServe, Prodigy sought to impose general rules of civility on its message boards and in its forums.*

> *While Prodigy had even more users than CompuServe and thus even less ability to screen material on its system, the fact it announced such rules and occasionally enforced them was the judge's basis for subjecting it to liability that CompuServe didn't face.*
>
> *The perverse incentive this case established was clear: any provider of interactive computer services should avoid even modest efforts to police its site. If the holding of the case didn't make this clear, the damage award did: Prodigy was held liable for $200 million. By the time I landed in Washington, I had roughed out an outline for a bill to overturn the holding in the Prodigy case.*

Separate from CDA 230 there is Section 512 of the Digital Millennium Copyright Act, which fills in some of the "intellectual property" exception in CDA 230, by providing a safe harbor whereby platforms *can* be held immune for infringing activities of their users. Unlike CDA 230 which has blanket immunity, DMCA 512 is a much more limited safe harbor that requires following certain steps as laid out in the law (such as taking down content upon receiving a valid notice) or through caselaw (such as not "inducing" infringement by proactively encouraging infringing practices).

Finally, in the US, there are also areas where there is no statute is officially in place, but caselaw has developed standards — such as in trademark/counterfeit law, where cases like *Tiffany v. eBay*[3] have established a basic level of intermediary liability protections, even absent statutory immunities or safe harbors.

While intermediary liability standards — and CDA 230 in particular — have been described as "the most important law in internet history"[4] and been credited with creating "a trillion dollars in value,"[5] there has been little formal attempt to collect economic evidence of these claims. Since there are now growing debates on modifying — and especially weakening — intermediary liability standards around the globe, it is important to look closely at the actual economic impact of these laws, and what kind of impact variations on the law might have.

One of the reasons why there is little in the economic literature on this specific point is that it is quite difficult to directly measure the impact of a single law on all of the economic activity created on the internet. Obviously, there are many other variables at play — and it is quite difficult to single out the impact of a single area of law. Conjuring up a counterfactual that can be compared to reality involves many different assumptions, and differences can have a major impact.

That's not to say there haven't been attempts. In 2013, Copenhagen Economics released a report[6] looking at the impact of online intermediaries on the EU economy, finding that online intermediaries added €430 billion to the GDP in 2012. In 2015 Oxera released a report[7] looking at how startups, in particular were impacted by liability for online content. That report found a strong correlation between strong and clear intermediary liability standards and the ability for startups to succeed.

In 2017, NERA Economic Consulting released a paper[8] estimating that weakening CDA 230 or DMCA 512 could cost the US economy approximately 4.25 million jobs and $440 billion in GDP over a period of 10 years. The NERA study, "Economic Value of Internet Intermediaries and the Role of Liability Protections," used a survey methodology to do conjoint analysis on consumer preference, comparing different scenarios on how platforms would be set up with and without liability protections, and then calculating a difference in value. This study was an important and useful contribution to the field.

This paper attempts to explore the same issue using a very different approach. Inspired by Josh Lerner's seminal paper, "The Impact of Copyright Policy Changes on Venture Capital Investment in Cloud Computing Companies,"[9] this paper looks at exogenous factors that resulted in either a change in intermediary liability standards and limitations, or cross-border or cross-regional comparisons of similar regions with different intermediary liability standards and limitations to seek to parse out the impact of these laws, as

evidenced by differences in the law (either across regions or through direct changes in the law — i.e., regulatory changes or key shifts in interpretation due to court rulings).

Lerner's cloud computing paper specifically looked at changes in investment behavior among venture capitalists in the US and the EU following a key ruling in the U.S. 2nd Circuit Court of Appeals in the case *Cartoon Network v. CSC Holdings*[10] which established a key element in the protections of cloud computing services that stream copyright-covered content over their systems. Lerner's paper compared venture investing in cloud computing platforms in both the US and EU before and after the 2nd Circuit's ruling in August of 2008, finding fairly convincing evidence that, as a result of that one ruling, venture capital investment in US cloud computing platforms increased significantly more than would otherwise be expected — estimating an increased amount of investment in the space of between $2 and $5 billion.

Unfortunately, there is not as direct a comparison on the question of general intermediary liability that would apply in the exact manner as Lerner's paper on cloud computing. However, this paper takes an initial approach looking at a variety of similar proxies to see if there is an established pattern, showing an impact in investment in internet platforms that can be strongly attributed to intermediary liability standards.

What we have found is that in regions where there is significant internet investment, it appears that having stronger protections for intermediaries leads to a significant increase in startup investment in companies protected by those laws. Even in situations where there are some intermediary liability standards, the stronger those protections are for the intermediaries, the more investment and economic growth we see.

We found this to be true in nearly every case that we looked at — whether comparing similar (or identical) regions with differing levels of protection, or in looking at areas where protections from liability were strengthened, which tended to show a very significant increase in investment into protected companies soon after. Conversely, we also found that changes in the law to decrease intermediary liability protections showed a profound negative impact on investment.

Even in situations where there are some intermediary liability standards, ***the stronger those protections are for the intermediaries, the more investment and economic growth we see.***

This effect however, did not appear as pronounced in areas without a strong entrepreneurial or venture capital community. That is, we did not see a noticeable change in countries that had minimal activity for internet entrepreneurs prior to greater protections for intermediaries. This suggests that intermediary protection all by itself may not be enough to stimulate the conditions for building a startup community — but should it already exist, the evidence in this paper suggests stronger protections for intermediaries leads to significantly greater investment, often to striking levels.

Finally, we see this paper as a starting point for further exploration. As noted earlier, this is an area that has not received very much study, despite its tremendous importance to innovation and the economy. Along with the NERA paper, we hope that this inspires greater research and understanding in this important area.

1. EU *v.s.* US

THE EU AND THE US make an obvious cross-regional comparison case study concerning intermediary liability standards. The CDA became law in 1996 and the DMCA in 1998. There was significant uncertainty over the CDA after it passed as the Constitutionality of the wider law — which included anti-indecency rules — was challenged. In 1997 the Supreme Court invalidated[11] all of the law except for Section 230, leaving Section 230's immunities in place.

CDA 230's protections were also challenged early on in the key *Zeran v. AOL*[12] case, which was decided in late 1997, establishing that the intermediary liability standards in CDA 230 were both valid and to be read broadly. The Supreme Court denied a rehearing petition in the Zeran case in early 1998, generally establishing that internet platforms can and would be seen as protected from liability for speech of their users. This coincides, more or less, with the implementation of the DMCA's Section 512 safe harbors, so we used 1998 as the key date for the US implementation of statutory intermediary liability protection.

The EU, to date, has a single key intermediary liability protection in the form of its EU E-Commerce Directive[13], which establishes the standards on liability protection that all EU member states need to abide by. The E-Commerce Directive was agreed to in the year 2000 and member states needed to have their laws in agreement with it by the beginning of 2002. And thus, we have our first cross regional comparison.

It is worth noting that different countries have different implementations of the E-Commerce Directive, though all require some level of intermediary liability limitations and standards. There have also been a few key cases that have chipped away at some levels of intermediary liability in the EU — though in narrowly focused areas. Specifically, the EU Court of Justice established a "right to be de-linked" in the Casteja case[14] in 2014, which is commonly referred to as a "right to be forgotten." However, due to the nature of this ruling, it mainly impacted search engines, such as Google and Microsoft's Bing, and appeared to have little direct impact on the wider ecosystem of internet startups.

Similarly, a ruling in the European Court of Human Rights in 2015 in the Delfi case[15] established intermediary liability for publishers of news who hosted comments on their site. While it is likely this may have resulted in more news sites removing comments or more carefully monitoring them, the narrowness of the impacted field of companies that this ruling impacted was unlikely to have a wider impact on investment.

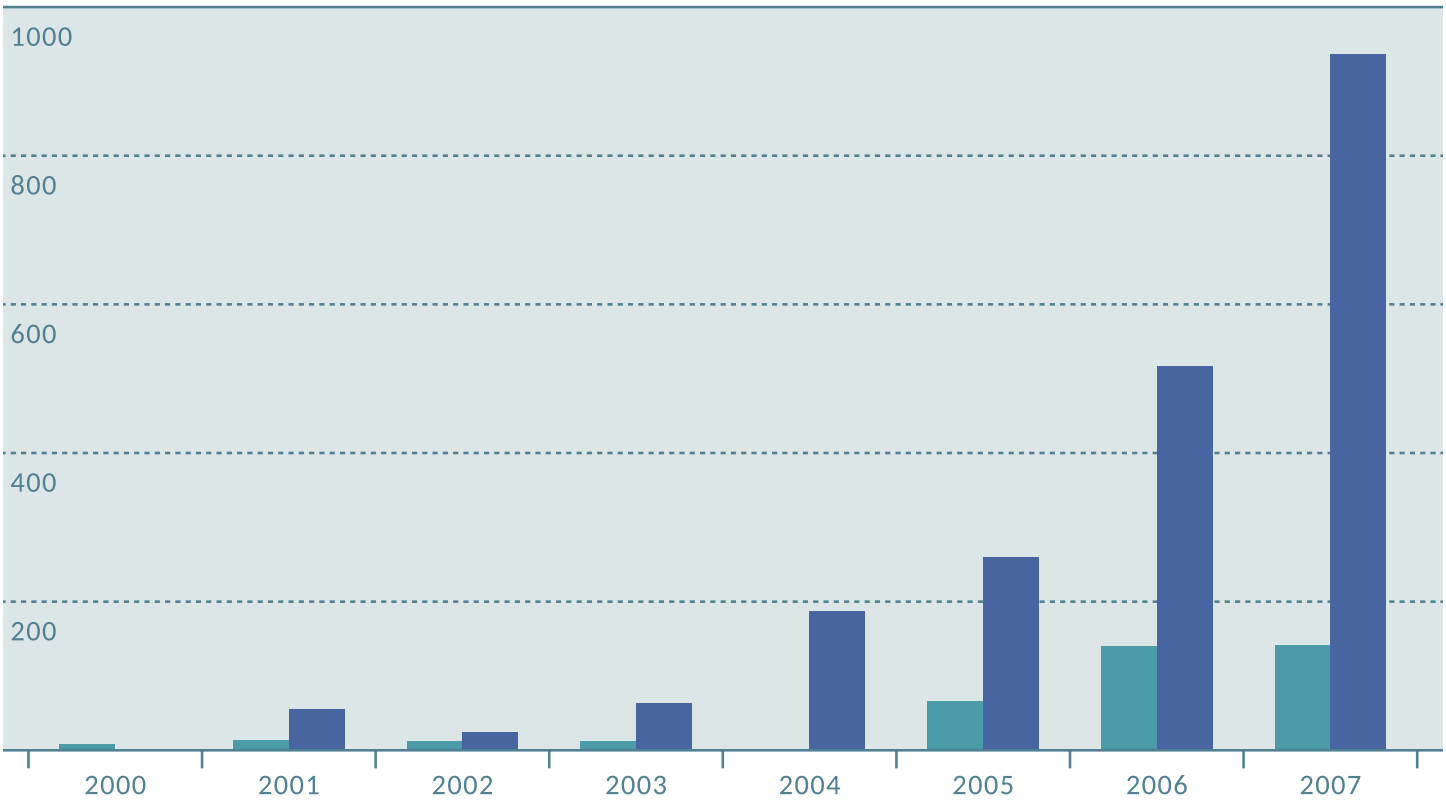
The overall E-Commerce Directive, on the other hand, had a major impact on startups in the EU.

For the purposes of this study, it's notable that the E-Commerce Directives protection for intermediaries is notably less encompassing than CDA 230 within the US. The EU's general intermediary liability standards are much more akin to the US's approach in copyright with the DMCA, in which platforms do not get blanket immunity, but must comply with a series of conditions — including responding to reasonable notices of rights infringing activity by taking down the content while also lacking "actual knowledge" of such activity prior to notice.

If we are to see benefits to investment from stronger intermediary liability protection, we would expect to see greater lev-

1.1 Interactive Platform Venture Capital Investments

» In Millions of US Dollars



els of investment in web platforms that make use of these laws to protect them in countries where the protection is greater. Indeed, that is exactly what we do see. A report by the EU Commission in 2009, entitled "The Impact of Social Computing on the EU Information Society and Economy"[16] highlighted much greater investment in the US into such platforms (described as "Web 2.0" platforms). ***[Fig. 1.1]***

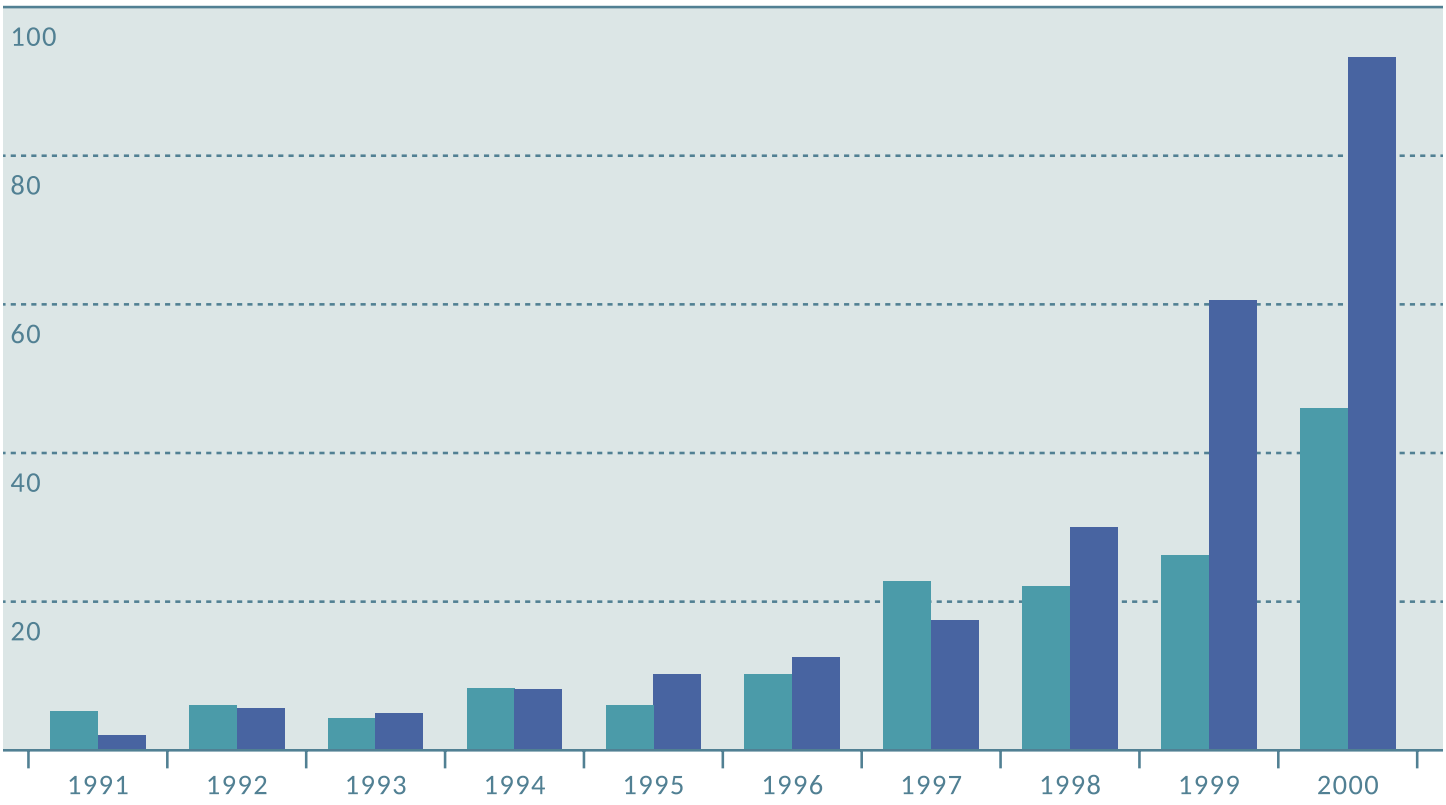
There are, of course, limitations to this simple comparison. Venture investing in the US and EU has always been different. Indeed, the EU venture capital industry began decades later than it did in the US and has always been smaller. However, in looking at data from prior to 2000, we see that EU and US venture investing was still a closer relationship than what we see above concerning internet platform investment. A 2004 report[17] by Laura Bottazzi for the Centre for European Policy Studies exploring weaknesses in research and development spending in the EU looked, briefly, at differences in venture investing in both regions. While it shows the US generally raising more in venture capital in the 1990s, the differences are not nearly as significant as we see in investments in web platforms. ***[Fig. 1.2]***

Again, while there are likely additional factors at work, there is something that is causing US venture capital investing to go into internet platforms earlier, and at a much greater rate than their EU counterparts. And, while EU VCs might invest in the US and US VCs can invest in the EU, it does seem clear that the main focus of investment is drawn to the US over the EU, which had weaker intermediary liability protections, and put them into place much later.

Looking at the charts, if we conservatively use the year 1999 or 2000 as a baseline for venture funds raised, we see approximately twice the amount that was raised in the EU was raised in the US. Even though this multiplier was significantly lower prior to 1999 and by 1999 the US had al-

1.2 Total Venture Capital Investments

» In Billions of US Dollars



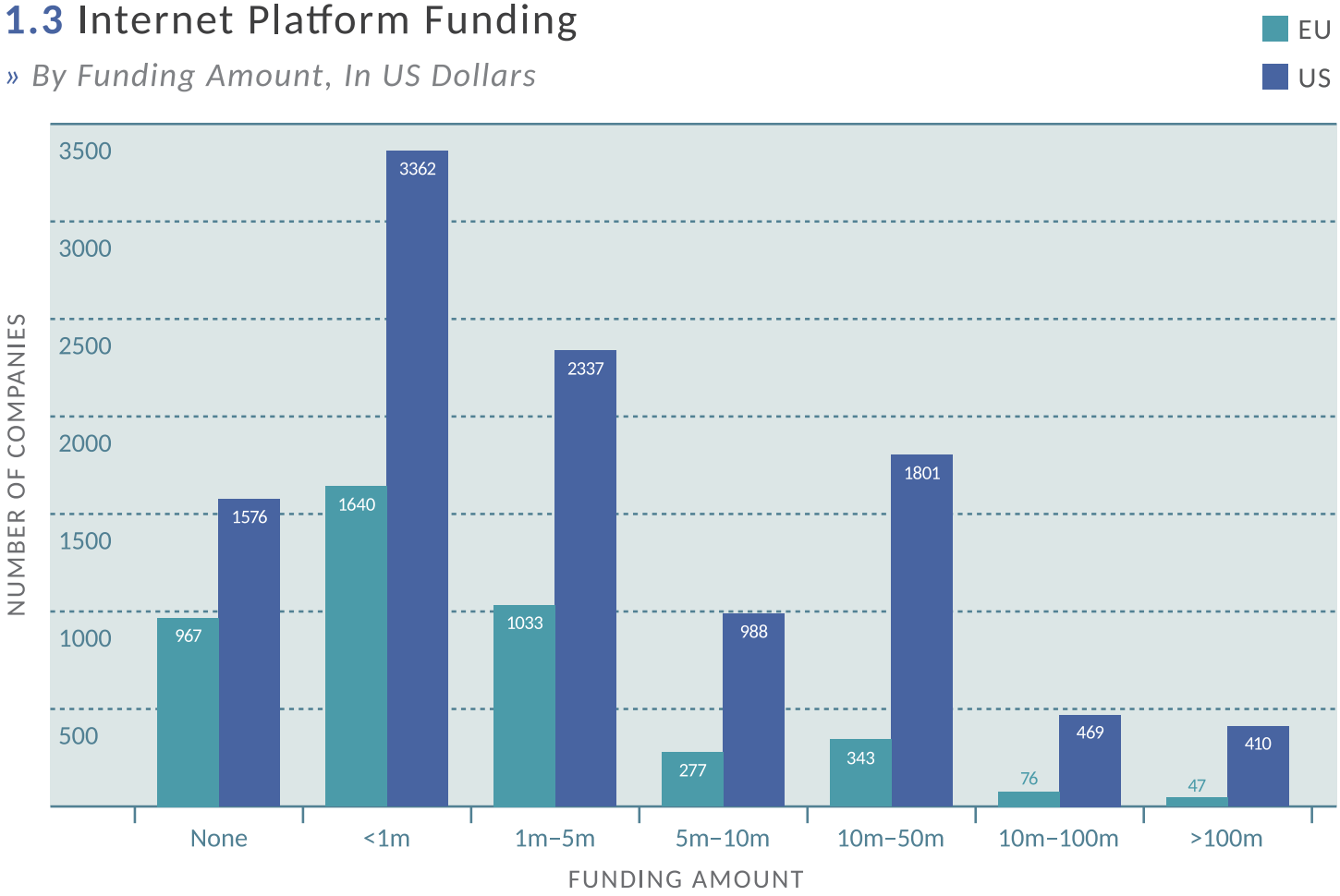
ready established its intermediary liability regimes, to be conservative, we will use a factor of 2 as the difference inherent in US venture, compared to the EU. Based on that, if we look just at the investments in web platforms that rely on intermediary liability laws, we see anywhere between 4 to 6 times greater investment in internet platforms in the years from 2005 to 2007. If we discount those by a factor of 2, as discussed above, that still suggests that the stronger intermediary protections in the US either doubled or tripled the amount of venture capital into platform startups in the US.

Using data from Datafox, we were able to compare data between internet platform companies in the US and Europe. We used a 15 year time horizon, looking at companies formed after January 1st of the year 2000 up until the end of 2014 (assuming that gives those companies time to establish themselves). Specifically looking at companies that were classified as social media, e-commerce or cloud computing companies, the data showed vast differences between the regions: 12,381 such companies in Europe (including non-EU countries, though the impact of making that restriction would be minimal; though since over ⅓ of the companies are based in the UK, that could change post-Brexit). In the US, there were 27,538 such companies.

Digging deeper we find significant differences in some key metrics as well. In Europe, only 47 companies in our dataset had received over $100 million in funding, compared to 410 such companies in the US. That is, despite there being roughly half as many European internet companies, roughly 1/10th received over $100 million in funding. Dropping down to just $10+ million in funding, we find that 2,680 US internet platforms received at least that much funding, compared to just 466 such internet plat-

1.3 Internet Platform Funding

» By Funding Amount, In US Dollars



forms in Europe. In *fig. 1.3*, we quickly see a major funding gap in Europe compared to the US, especially at the high end.

This suggests that a US based company, under the framework set forth by CDA 230, a company is 5 times as likely to secure investment over $10 million and nearly 10 times as likely to receive investments over $100 million, as compared to internet companies in the EU, under the more limited E-Commerce Directive. In short, the data shows that internet platform companies built under a CDA 230 regime, are much more likely to receive the significant investment necessary to grow and succeed.

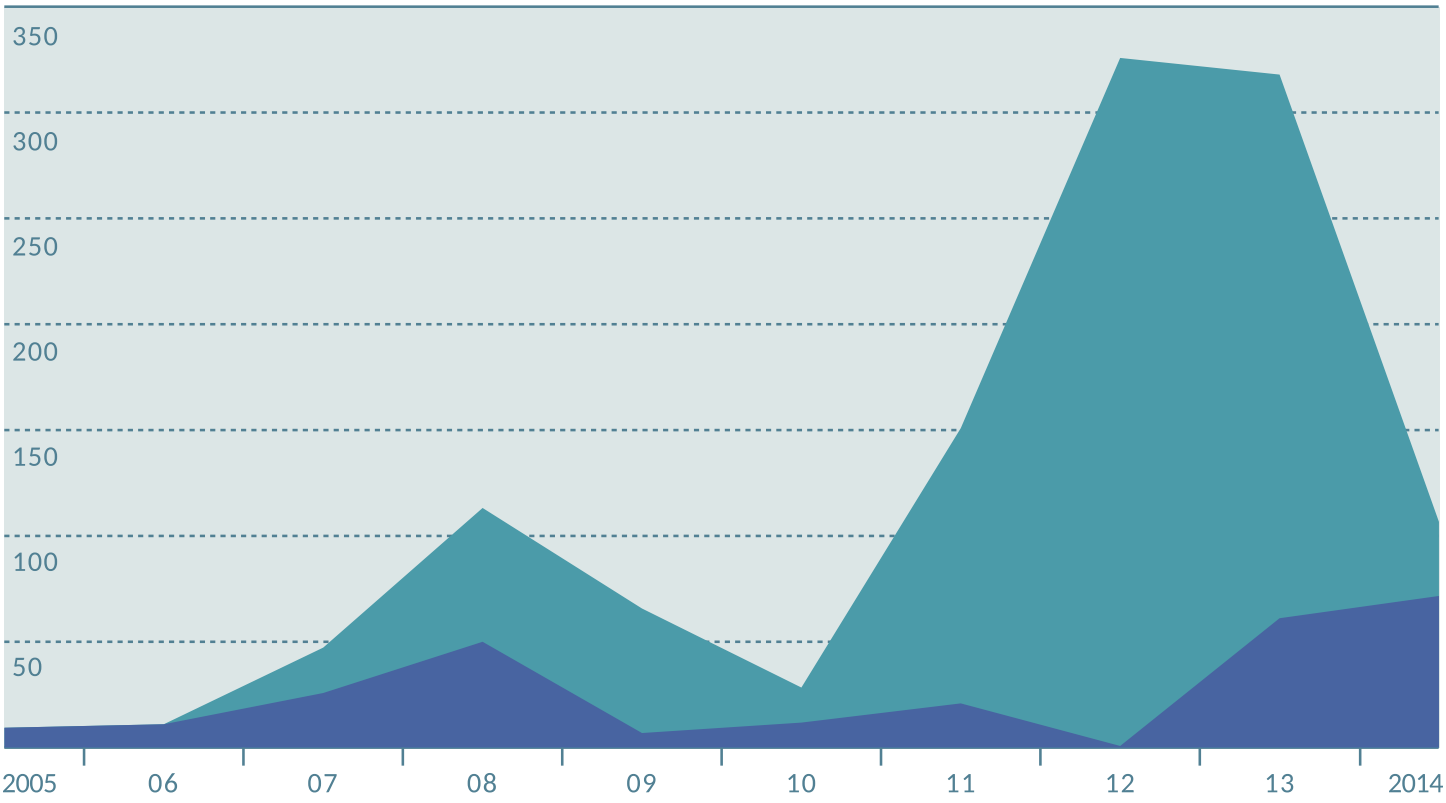
A less quantitative check on the implications here can be done by carving out the copyright question from the broader question of intermediary liability. Since the EU's E-Commerce Directive is similar in scope to the US DMCA, we should expect to see a closer relationship between investment in the US and EU in platforms that rely on copyright-focused intermediary liability protections. And, indeed, while there are very few major EU-based platforms outside of the copyright arena, within the copyright arena we see a few of the "big players" coming out of Europe, including Soundcloud, Deezer, Spotify, Shazam, Last.fm, Songkick and Dailymotion.

Using Crunchbase to examine this further, we looked at all funding rounds between 2000 and 2014 for music streaming companies in both the US and Europe. US companies had 46 such funding rounds, raising over $300 million dollars (Beats Music, now owned by Apple, representing the largest investment), while European companies had 34 funding rounds for $900 million dollars with both Spotify and Deezer being the top recipients).

In *fig. 1.4*, we look at investment into US and European streaming music companies from 2005 to 2014.

1.4 Music Streaming Service Funding

» In Millions of US Dollars



Thus, when comparing the success of internet companies that involve primarily speech, where the US provides better protections, nearly all of the largest, most well-known platforms in social media came out of the US. And, indeed, that's where we see the strongest intermediary liability standards in place. When the playing field is more level — i.e., between the DMCA 512 and E-Commerce Directive — both of which have a notice-and-takedown provision along with an "actual knowledge" standard, we see smaller companies, but the big names are more evenly split between the US and the EU, providing strong additional evidence that the strong intermediary liability protections of CDA 230 have helped, significantly, in developing innovative success stories in the US internet industry.

To try to parse out some quantitative level of impact, we used Crunchbase and Owler to compare "platform" based internet companies — who generally rely on the standards laid out in either CDA 230 or the E-Commerce Directive — who are based in the EU v. those in the US. This is not a perfect comparison. Different companies rely on these standards to different degrees, and many companies have offices and employees in both countries. But as an initial investigation, there does appear to be some consistency that suggests a range of possible impacts.

Specifically, while there were 3,889 such companies headquartered in the US, while there were less than half those, 1,759, based in the EU. The total funding showed, not surprisingly, the lions share went to companies in the US: $9.8 billion, compared to just $1.2 billion in the EU. Even more notable, though, were the number of jobs created and the revenue driven by each. Those companies in the US produced $138.3 billion in 2017, while in the EU, just $4.2 billion. The US companies also employed 279,905 employees, while the EU employed 26,977.

2. US *v.s.* US

OF COURSE, WE DON'T EVEN NEED to go outside of the US to look at how different levels of intermediary liability protection could impact innovation and the economy. As described earlier in the report, due to the different levels of protections between CDA 230 and DMCA 512, it should be possible to explore how well different startups have fared in different realms. David Pakman, a venture investor who worked for many years in the digital music space highlighted just how hostile to innovation US copyright law has been in his testimony to the Copyright Royalty Board in 2015, taking a data-driven approach to innovation in that field, as compared to other parts of the internet.[18]

> ***Digital Music:*** *All in all, my research revealed that, since 1997, approximately 175 digital music companies were created and funded by venture investors. Of those, approximately 33 were acquired by larger companies, sometimes for less money than their investors put in. Of those who have exited, I believe only seven achieved meaningful venture returns for their investors by returning more than $25 million in profit to the investors (Last.FM, Spinner, MP3.com, Gracenote, Thumbplay, Pandora and possibly The Echo Nest), representing an investor success rate of only approximately 4%, far below that of other internet and technology market segments (see subsection b), below). Only two have achieved an IPO, and at least 15 companies have resulted in a distressed exit and/or filed for bankruptcy so far, for an 8.6% failure rate to date. Given that I know of no profitable standalone webcasting companies, I believe this failure rate will only worsen over the coming years as the remaining companies in this space continue to struggle.*
>
> ***Comparison to Other Market Segments:*** *Although the venture capital industry is used to failure, the failure rate of webcasting and digital music companies is among the highest of any industry I have evaluated at Venrock. Other internet and technology market segments attract far larger numbers of startups and have produced positive investor outcomes at a rate which compares more favorably to the digital music market. For example, more than 5,175 venture-backed companies have been formed in the mobile communications space. Of those, approximately 1,369 have achieved an exit bringing a profitable return to their investors, for a success rate of 26.54% and only 249 have filed for bankruptcy for a 4.8% failure rate. In the SaaS sector, more than 7,987 venture-backed companies were created, and, so far, at least 2,243 had profitable liquidity events, a success rate of approximately 28% and only 335 have resulted in bankruptcy for a 4.2% failure rate. At least 1,800 eCommerce companies have been formed and venture-backed so far, with 407 profitable outcomes, or a 22.6% success rate and a bankruptcy rate of 6.5% (117). Perhaps most importantly, these figures demonstrate a dramatically lower level of venture investment into the digital music sector – 175 venture funded companies in digital music compared with thousands in many other technology sectors.*

Pakman's research was conducted using a dataset from Pitchbook. Using Crunchbase, we attempted to conduct a similar analysis. Using our dataset, we found 293 companies in the digital music market, with 158 having some venture funding. We used similar search criteria to Pakman's original dataset.

Our dataset showed 7 companies that had gone public and another 36 who were acquired. While 24 were officially listed as closed down, many of the websites of companies still listed as "private" but in operation no longer appear to work, suggesting they have also shut down. Among those who had gone public are those who had gone public decades ago in different businesses — Apple and iHeart Media (formerly Clear Channel). Some of those who are listed as having gone public no longer seem to exist (such as Station Digital).

Going through the list, the following companies qualify as "successful" exits for investors (mainly through acquisition): Beats Music, Spotify, Pandora, MP3.com, Thumbplay, Gracenote, Saavn (focused on the Indian market, but available in the US), Last.fm, Tunes.com, Spinner.com, Shazam, and possibly Songza. Many of the "acquisitions" were not at all successful exits, often at prices below that which they had raised (e.g. Lala, Slacker, Rdio, Mog, Napster, MediaNet, Live365). The "success" rate, then is 12 out of 158 companies — or 7.6%. This is slightly higher than Pakman's analysis, but it helped along by the successful sale of Beats Music to Apple and the IPO of Spotify, both of which took place after his original 2015 analysis. This number is still significantly below other areas. Our dataset also shows a "shut down" rate of 8.2%.

To compare, we used Crunchbase to explore similar arena that rely heavily on CDA 230, starting with social media companies. Our dataset shows 5,554 venture funded social media companies, with a successful exit rate of just under 28% and a shut down rate of 10%. Looking at venture funded "cloud computing" companies, we found 1,928, with a successful exit rate of nearly 40% and a shut down rate of just 4%. Looking more narrowly at cloud storage companies, we found 192 venture funded companies, with approximately a 30% successful exit rate, and just a 5% shut down rate. In the e-commerce space, we found 8,175 companies, with a successful exit rate just over 30% and a shutdown rate of 6%.

Over and over again, we see greater success in terms of exits for companies that rely heavily on CDA 230 ***and a lower shut down rate than when looking at companies that rely on DMCA 512.***

Over and over again, we see greater success in terms of exits for companies that rely heavily on CDA 230 and a lower shut down rate than when looking at companies that rely on DMCA 512. While there are, obviously, many other factors at work here, it is significant that in almost every comparable market that we look at in the US, comparing those that rely primarily on the DMCA vs. those that rely primarily on CDA 230, that not only are there significantly more companies that rely on CDA 230, but they tend to be more successful and have a lower failure rate.

3. Local Changes

THE SECTIONS ABOVE looked at comparing either different regions or different areas impacted by the law. Another area that can be explored is what happens before and after key legal changes in intermediary liability protection, whether done by legislative change or by key judicial rulings. To examine these, we relied on a small panel of law professors who were asked which cases have had the most impact on intermediary law. From that list, we explored the overall impact on startup formation and investment.

INDIA

In India, thanks to some vague and conflicting language in the Information Technology Act, it was not entirely clear what level of liability would be placed on intermediaries. One of the major concerns was around Section 66A of the IT Act, which broadly criminalized a whole variety of speech online, and left open the possibility of intermediaries taking the blame. Basically, it said that anything "grossly offensive" or messages designed to "cause annoyance" could be criminal — and blame could be pinned on the intermediaries hosting that speech. A variety of lawsuits/petitions were filed challenging this, including by an online review company Mouthshout. The various legal challenges to 66A got combined and eventually resulted in a Supreme Court ruling in March of 2015 declaring all of 66A unconstitutional. The official ruling is under the case headline Shreya Singhal v. Union of India.

A second, but important for the question of intermediary liability, part of the ruling was that Section 79 of the Act was read to mean that intermediaries only needed to take down content upon a request from a governmental body, having adjudicated the illegality of content, rather than just based on takedown requests from private parties.

This ruling, then, both took away a rule that criminalized lots of speech and simultaneously raised the bar for intermediary liability.

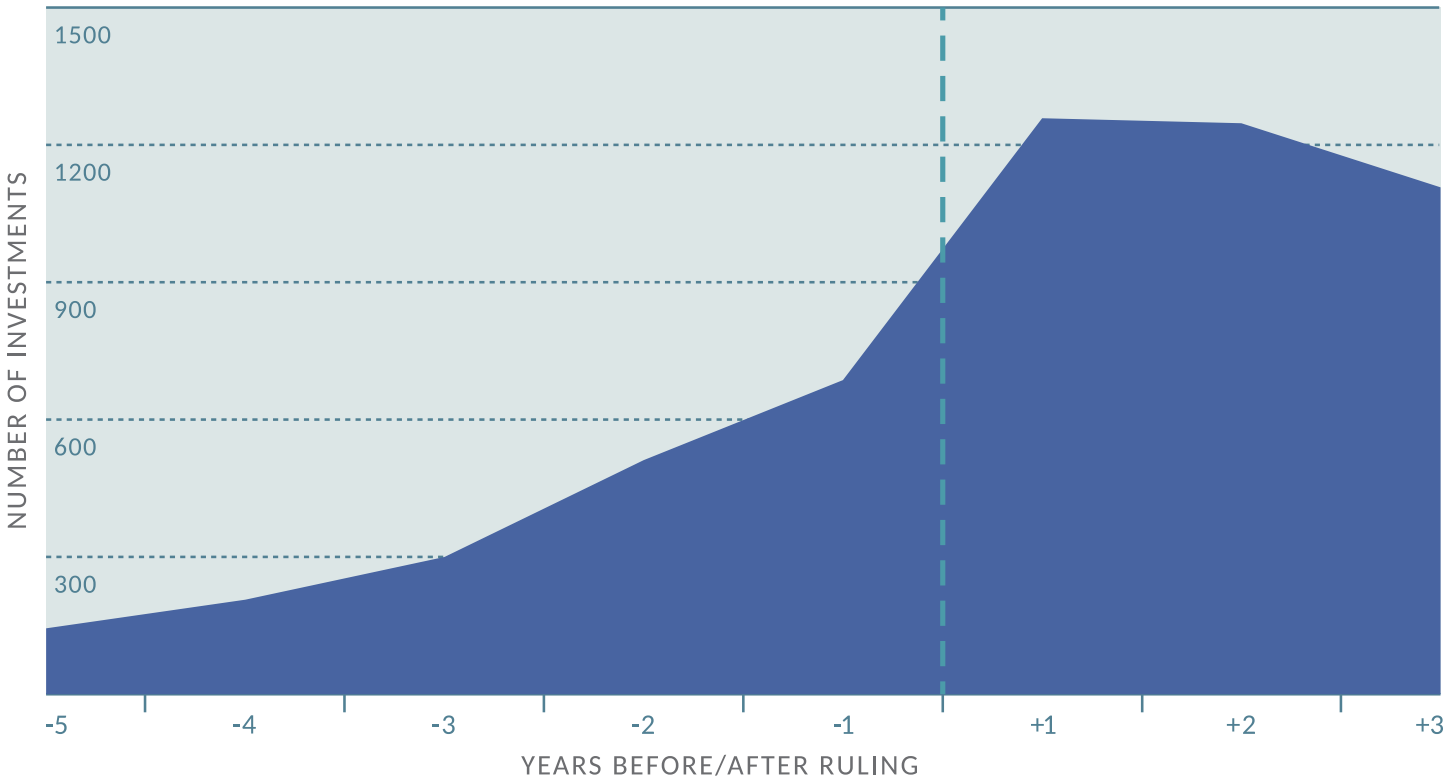
Using Crunchbase, we investigated whether there was any noticeable shift in startup investment in the three year periods before or after the Singhal ruling. The results were immediately striking. In the 3 years prior to the Supreme Court ruling, there were 1,642 investments in startups in India, putting a total of $15.4 billion into those companies. In the 3 years after the ruling, the numbers shot up tremendously: 3,938 investments totally $46.9 billion. That's a 139% increase in investments and 205% increase in money invested.

Digging in to these numbers in more detail we can see a pretty massive jump right after the ruling in the case, nearly doubling the number of investments that had been growing year by year, but not nearly at this rate. *[Fig. 3.1]* We saw a similar pattern when looking at startup exits/acquisitions over this time period. *[Fig. 3.2]*

While there may be additional factors, the timing of all this is quite notable. Right after this ruling that greatly strengthened intermediary liability standards in India, the number of investments and exits jumped up by a fairly massive amount.

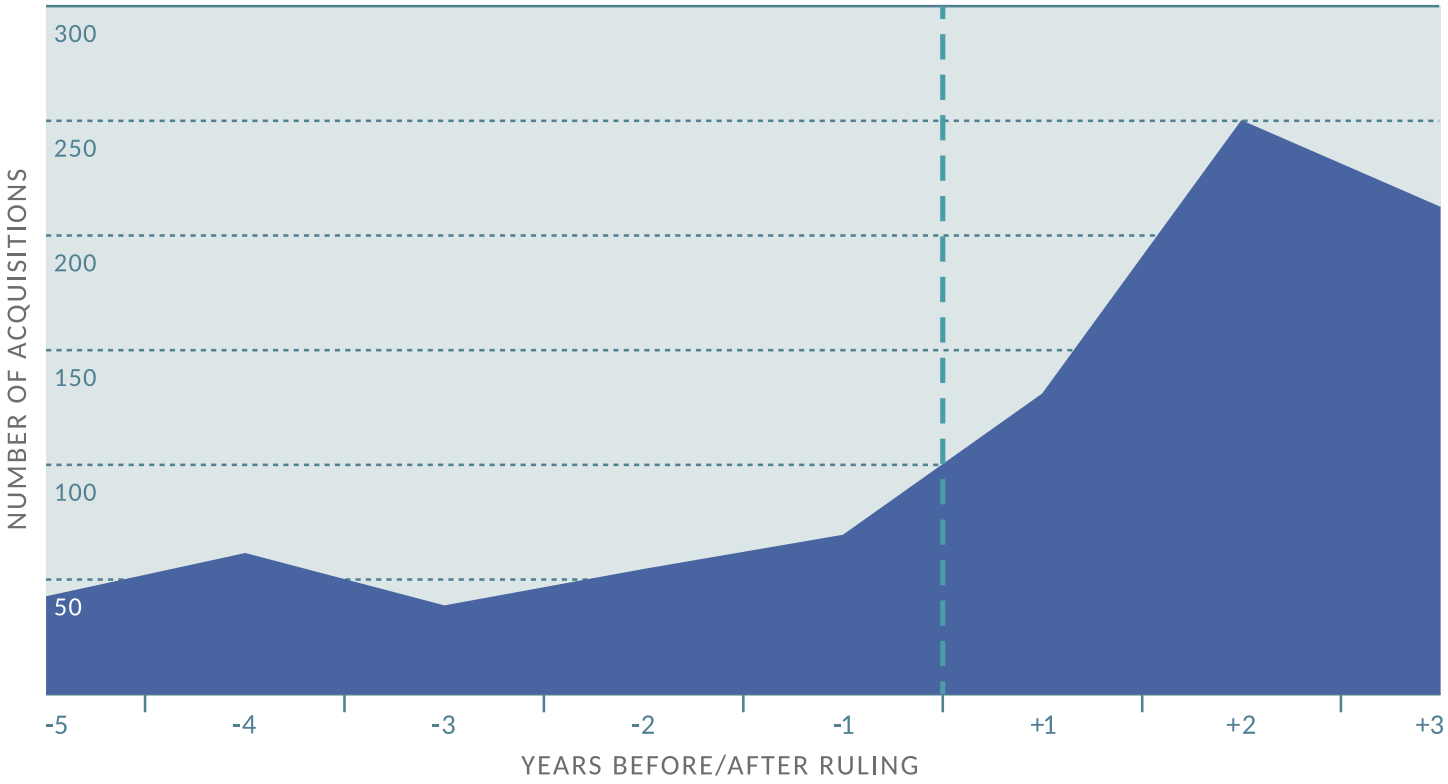
3.1 Startup Venture Capital Investment In India

» Before & After IT Act Ruling



3.2 Startup Acquisitions In India

» Before & After IT Act Ruling



CANADA

In June of 2012, Canada passed its Copyright Modernization Act[19] which made a number of changes concerning copyright in Canada, including many changes that strengthened intermediary liability protections for platforms in copyright-related cases. It stated that content neutral ISPs can't be held liable, and included hosting and caching services in that safe harbor as well. It also established a notice-and-notice system in which intermediaries can notify the uploaders of content of a claim prior to it being taken down. This gives platforms much more leeway than a system like the DMCA that requires taking down content rapidly upon receiving a takedown notice to retain the protections against liability.

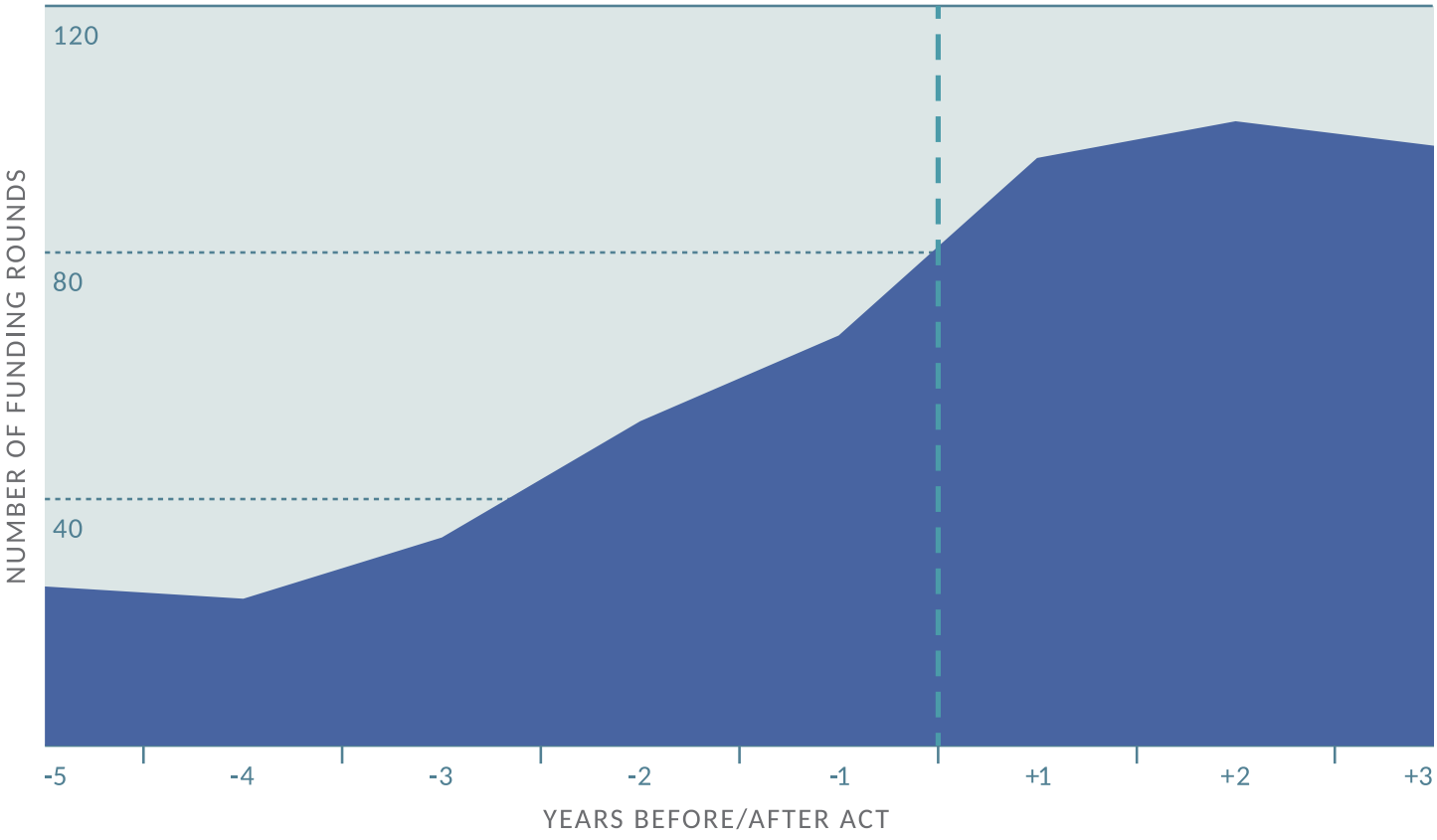
The law went into effect in November of 2012, and we used the dataset from Crunchbase to explore the impact on investment in startups related to content hosting/content creation. At a first pass, we saw nearly a doubling in the number of fundings done in the three years after the change in the law, as compared to the three years prior to it. Looking more closely at the data, we found a pretty big shift in terms of the number of startup investments concerning content-focused platforms. *[Fig. 3.3]*

The inflection point does appear to begin slightly before the law went into effect, but it seems likely that some of this may be due to the fact that there was the lag between the law passing on June 29th and when it went into effect on November 7th. What does seem clear is that after the change in intermediary liability standards, there appeared to be a new floor for investments in the space, jumping from a few dozen to around 100.

This is also the period where a number of online platforms really began to take off in Canada. Among those raising much large rounds of funding after the law changed

3.3 Startup Funding Rounds In Canada

» Before & After Copyright Modernization Act



were social media platforms like Hootsuite (who raised ~$225 million of its $300 million raised after the law changed) or Kik (raised ~$200 million a total of ~$220 million after the law changed), ScribbleLive (~$45 of its ~$50 million) and user generated content site Wattpad (~$100 million of approximately ~$120 million raised).

In short, there is strong evidence that having these stronger and clearer intermediary liability standards in place in Canada helped drive significant investment into platforms that rely on those protections, leading them to become much larger players globally.

RUSSIA

In the country specific examples we've looked at above in India and China, those were both examples of intermediary liability protections moving in a direction of more protection, leading to greater investment and success for internet companies. To look at a country going the other direction, we explored what was happening in Russia. While Vladimir Putin was Russian President from 2000 until 2008, from 2008 to 2012 due to Russian Constitutional term limits, he became Prime Minister while Dmitry Medvedev became President. While Medvedev is often accused of merely being a puppet[20] of Putin's while in office, he did work towards building stronger connections with the west[21] including a focus on creating a Russian Silicon Valley[22] as a part of his plan that he called "Go Russia!"[23] Part of that plan was to build up the internet sector by enabling more innovation and open platforms for innovation:

> *The growth of modern information technologies, something we will do our best to facilitate, gives us unprecedented opportunities for the realisation of fundamental political freedoms, such as freedom of speech and assembly. It allows us to identify and eliminate hotbeds of corruption. It gives us direct access to the site of almost any event. It facilitates the direct exchange of views and knowledge between people all around the world. Society is becoming more open and transparent than ever – even if the ruling class does not necessarily like this.*

This effort did, in fact, lead to much great investment in tech and internet companies in Russia. However, in 2012, Putin re-assumed the Presidency and most of Medvedev's big plans fell by the wayside.[24]

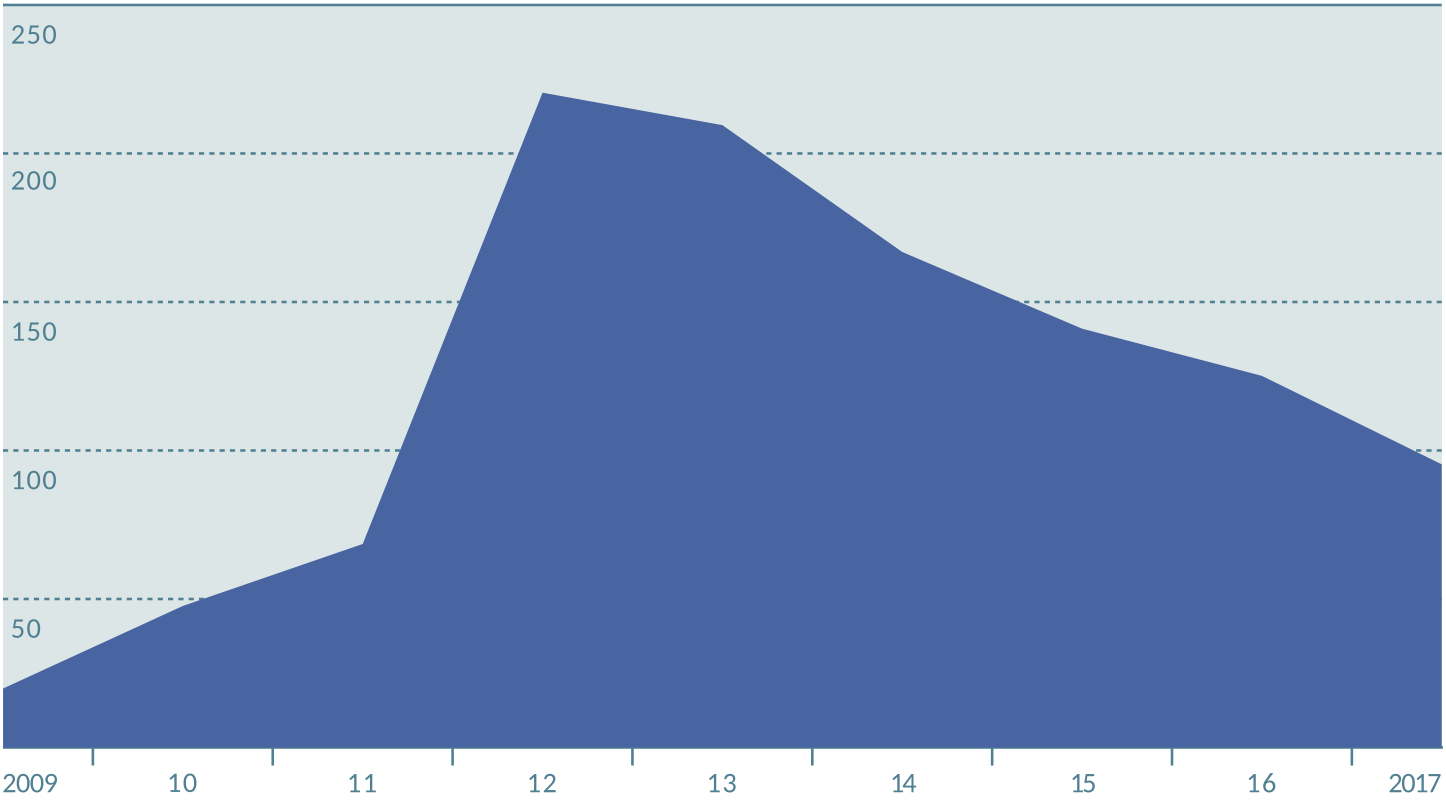
The real changes, however, began in late 2013 and continued through 2014, during which time Russia passed a series of laws that all seemed to have a negative impact on intermediary liability within the country.[25] In 2012, with Putin back in control, Federal Law No. 139-FZ was passed, creating a "blacklist" of content deemed harmful to children that sites were required to block. In 2013, there was Federal Law No. 187-FZ, which increased intermediary liability for internet companies dealing with copyright infringement, and requiring sites to block access to infringing content or face being blocked entirely in Russia.

2014 is when efforts to stop internet intermediaries from publishing information the government deemed harmful really increased significantly. There was Federal Law No. 398-FZ which enabled blocking entire websites if they had content that called for protests or "extremist" activities. Then there was Federal Law No. 97-FZ, referred to as the "Blogger's Law," which required blogging sites to register with the government and "ensure correctness of published information," among other things (including data retention). Then Federal Law No. 433-FZ which established criminal liability for sites that hosted content that "aimed at violating the territorial integrity of the Russian Federation." And then at the end of the year they passed Federal Law No. 364-FZ, which expanded the copyright law passed in 2013 to cover even more content and sites.

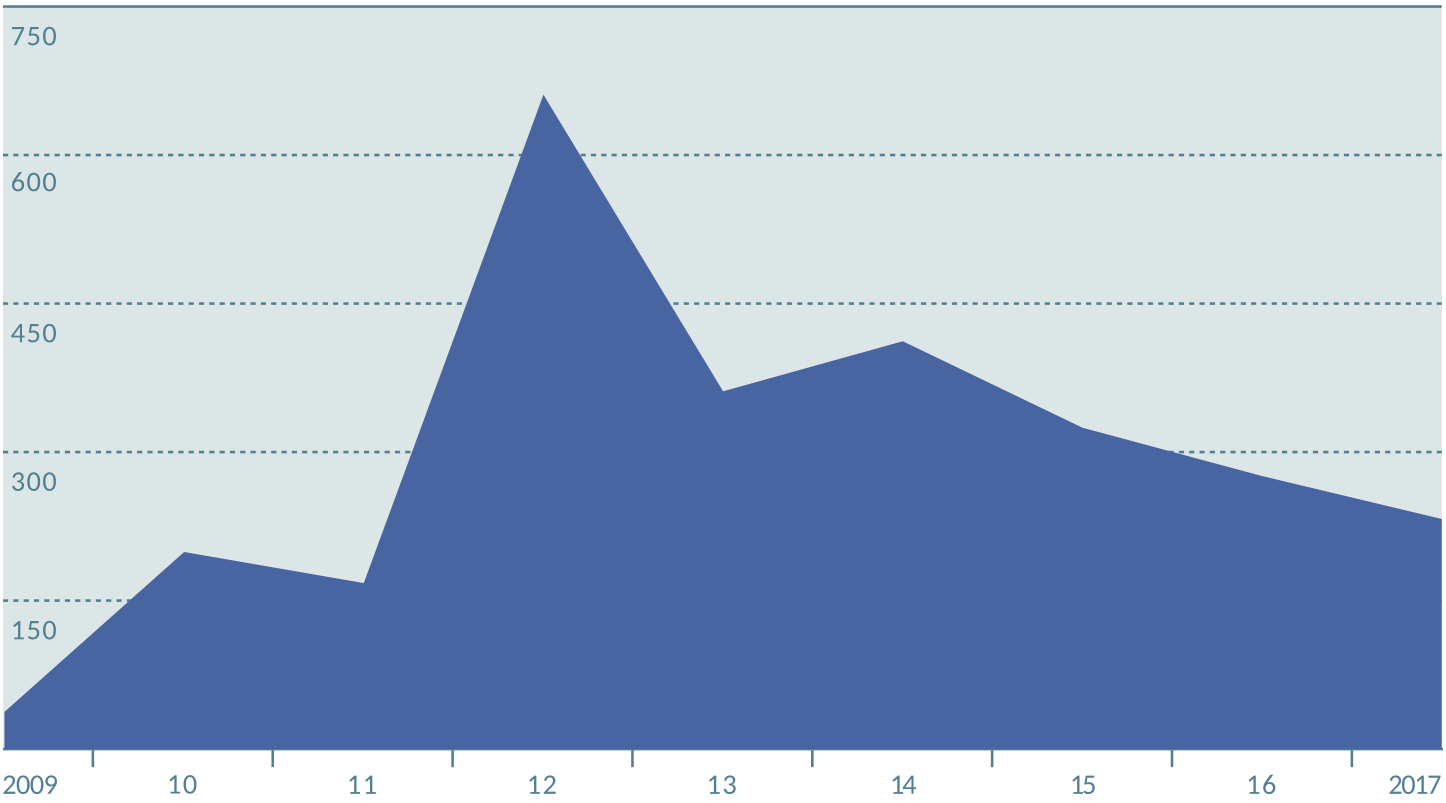
Basically, the Russian government declared war on the internet — especially on platforms hosting content from users. And the investment trends in Russia became quite clear. There was a large increase in investment until Putin returned to power and began changing the laws that negatively impacted intermediary liability protections. *[Fig. 3.4]*

3.4 Startup Funding In Russia

» Based on Number of Funding Rounds



» Based on Amount of Money Raised, In Millions of US Dollars



As the graphs show, there was a great increase during the Medvedev Presidency, and then as President Putin started passing more and more laws that attacked intermediary liability, the investment has rapidly and continued to decline. An article in Foreign Policy Magazine from 2015 described the feeling among entrepreneurs in that country:[26]

> *"I know five or eight companies who either are leaving or have already left," said Anton Gladkoborodov, co-founder of Coub, a video-sharing platform and among the most successful companies in Moscow's nascent tech scene. "If they open the borders and let people have visas, everyone will leave."*
>
> *Nina Zavrieva, co-founder of another Moscow start-up, Channelkit, a digital management tool with similarities to Pinterest, agrees.*
>
> *"I know quite a few start-ups whose founders have moved to the U.S., to New York, San Francisco," she said. "Even Ireland — there are programs and incubators there. People are proactively looking for opportunities outside of Russia." Both Gladkoborodov and Zavrieva are planning their own exits. Coub already has office space in New York City; Channelkit hopes to relocate to the United States toward the end of 2015. And so the dream of a Russian "Silicon Steppe" looks to have died before it even began.*

While, once again, there may be many factors at play here, it is telling that a key part of Putin's effort to move away from Medvedev's open embrace of Silicon Valley innovation was to specifically attack intermediary liability protections over and over again.

ARGENTINA

Unlike many other countries, Argentina initially did not have any written laws concerning intermediary liability for internet platforms, leading to a number of lawsuits. Part of the issue was that article 1113 of the Argentinean Civil Code enables strict civil liability in many cases. The key case that went to the Argentinian Supreme Court in 2014 was *Belen Rodriguez v. Google*[27], in which a model and actress sued Google & Yahoo claiming search engines were liable for links to pornographic images and websites when people searched on her name (and separately didn't want any actual images of herself to turn up as well).

A district court sided with Rodriguez and ordered an injunction against the search engines. An appeals court overturned the lower court regarding the links to porn sites, but supported finding liability for the use of actual image thumbnails. On October 27, 2014, the Supreme Court ruled in favor of intermediary liability for search engines, arguing that article 1113 did not apply and that without notice, search engines should not be held liable. This action brought clarity to intermediary law in Argentina where prior to that it had been unclear.

While there is not a thriving internet company community in Argentina, there are some successful internet companies there. To explore the impact of the Belen Rodriguez ruling, we looked at investments in internet startups after the ruling, as compared to before the ruling. It is notable that there is one "giant" internet company in Argentina — MercadoLibre, which is a public company listed on the NASDAQ. It appears that the market reacted very positively to the Rodriguez ruling, as MercadoLibre's stock jumped from 112.16 to 136.15 the week of the ruling — a jump of 21%.

Among other internet companies there are indications that strong intermediary liability protections helped as well. Another major e-commerce player in Argentina, Avenida, raised its largest round, for $30 million, in 2015, after the ruling, bringing its total investment to $50 million. Then there's Affluenta, a marketplace lending company, which raised $3 million prior to the ruling, and $10 million after it. Almashopping more than doubled its equity investment getting a $650,000 infusion (on top of the $575,000 it had raised in 3 earlier rounds) just weeks after the Rodriguez ruling came out.

With Argentina, admittedly, the sample size of inter-

net-focused companies is likely too small to draw and complete conclusions. Looking at the investments by the two major venture capital firms in Argentina, Kaszek Ventures and NXTP don't reveal any noticeable uptick in investments following the Rodriguez ruling (for NXTP the number of investments has trended downward).

While there are a few anecdotal stories here, the data does not suggest a huge boost in internet investment spending after the Rodriguez decision. Thus, we are reticent to conclude that putting in place a regime that protects intermediaries without also having a strong entrepreneurial ecosystem in place is sufficient to create a noticeable boost. However, given all of the other evidence in the paper, in places where there is an entrepreneurial ecosystem there does appear to be a large impact.

It is also noticeable that the data in Argentina may be distorted by the larger Latin American market. In talking to both entrepreneurs and venture capital groups in Latin America, multiple people pointed to efforts in Chile — specifically the "Startup Chile" effort that drove a lot of entrepreneurial activity there, even convincing some Argentinian entrepreneurs to move to Chile. It is notable that Chile strengthened its intermediary liability protection laws in 2010. The Startup Chile effort, however began at the beginning of 2011[28] and the influx of investment into internet companies began soon after that, and is more likely attributable to that program, rather than the changes in intermediary liability protections (though, given all of the other evidence in the paper, it seems likely that having those strong protections helped enable those later investments).

Conclusions

AS WE NOTED AT THE BEGINNING, this paper looks to add to the ongoing discussion and literature about the economic impact of strong laws protecting intermediaries from liability due to the actions of their users. Given how difficult it is to separate out the direct impact of that one area of law, we recognize that there may be other factors and variables involved in the results that we show above. However, at the very least, we believe that this should help push the discussion on this topic forward and hopefully lead to additional research in the area.

Furthermore, given that we see the pattern happen again and again in different places and different regions, we think there is significant and compelling evidence that the impact of comprehensive intermediary liability protections has a strongly positive impact on the economy and innovation. The report above looked at this issue in multiple scenarios around the world, and over and over again the data shows that stronger protections lead to greater investment, while weaker protections lead to less investment.

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