Chapter 1: Rethinking Piracy

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Introduction

What we know about media piracy usually begins, and often ends, with industry-sponsored research. There is good reason for this. US software, film, and music industry associations have funded extensive research efforts on global piracy over the past two decades and, for the most part, have had the topic to themselves. Despite its ubiquity, piracy has been fallow terrain for independent research. With the partial exception of file sharing studies in the last ten years, empirical work has been infrequent and narrow in scope. The community of interest has been small—so much so that, when we began planning this project in 2006, a substantial part of it was enlisted in our work.

That community has grown, but there is still nothing on a scale comparable to the global, comparative, persistent attention of the industry groups. And perhaps more important, there is nothing comparable to the tight integration of industry research with lobbying and media campaigns, which amplify its presence in public and policy discussions.

Industry research consequently casts a long shadow on the piracy conversation—as it was intended to do. Our study is not envisioned as an alternative to that work but as an effort to articulate a wider framework for understanding piracy in relation to economic development and changing media economies. This perspective implies looking beyond the calculation of rights-holder losses toward the evaluation of the broader social roles and impacts of piracy. In so doing, it provides a basis for rethinking key questions raised—and often left hanging—by the industry studies: What role does piracy play in cultural markets and in larger media ecosystems? What consumer demand does it serve? How much piracy is there? What are losses? How effective is enforcement? How do software, music, and film industries differ in their exposure to piracy and in their strategies to combat it? Is education a meaningful strategy in anti-piracy efforts? What role does organized crime (or terrorism) play in pirate networks? Because such questions provide the foundation for the larger piracy debate and for the specific case studies that follow, they are the subject of the balance of this chapter.

Global factors shape many of our answers, from multinational pricing strategies, to international trade agreements, to the waves of technological diffusion that are transforming cultural economies. But the organization of piracy and the politics of enforcement are also strongly marked by local factors, from the power of domestic copyright industries, to the structure and role of the informal economy, to differing traditions of jurisprudence and
policing. This report’s most original contributions, in our view, are its explorations of these differences and their impact on the cultural life of their respective countries and regions.

What Is Piracy?

We use the word “piracy” to describe the ubiquitous, increasingly digital practices of copying that fall outside the boundaries of copyright law—up to 95% of it, if industry estimates of online music piracy are taken as an indicator (IFPI 2006). We do so advisedly. Piracy has never had a stable legal definition and is almost certainly better understood as a product of enforcement debates than as a description of specific behavior.¹ The term blurs, and is often used intentionally to blur, important distinctions between types of uncompensated use. These range from the clearly illegal, such as commercial-scale, unauthorized copying for resale, to disputes over the boundaries of fair use and first sale as applied to digital goods, to the wide range of practices of personal copying that have traditionally fallen below the practical threshold of enforcement. Despite fifteen years of harmonization of IP (intellectual property) laws in the wake of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), there is still a great deal of variation and uncertainty in national law regarding many of these practices, including the legality of making backups and breaking encryption; the extent of third-party liability for ISPs (Internet service providers) or search engines linking to infringing material; the evidentiary requirements for prosecution; and the meaning of “commercial scale,” which under TRIPS has marked the boundary between civil and criminal liability.

The massive growth of personal copying and Internet distribution has thrown many of these categories into disarray and prompted industry efforts to bring stronger criminal and civil penalties to bear on end-user infringement. The context in which most people use—and hear—the word piracy is the context

¹ The most thorough excavation of the term, going back to the seventeenth century, is certainly Johns (2010). We take up this history as well in the Coda to this report. The term does have recent definitions in international IP law—most notably in TRIPS, where it refers to the infringement of copyright and related rights (for example, the rights of performers, producers of phonograms, and broadcasting organizations).
created by these enforcement campaigns. We have continued to use the term because it is the inevitable locus communis of this conversation and because such discursive spaces are subject to drift and reinvention. One need look no further than the emergence of “Pirate” political parties in Europe organized around broad digital-rights agendas. As the Recording Industry Association of America recently suggested, piracy is now “too benign” a term to encompass its full range of harms (RIAA 2010).

We have wanted, consequently, to avoid moral judgments in exploring the “culture of the copy,” to borrow Sundaram’s (2007) more nuanced and inclusive terminology. One person’s piracy has always been someone else’s market opportunity, and the boundary between the two has always been a matter of social and political negotiation. The history of copyright—so extensively excavated in the past two decades—^2—is largely a history of struggles against (and later incorporation of) disruptive market innovations, often linked to the emergence of new technologies. Although there is much that is novel in the present circumstances, it is hard not to see the recurring dynamic among incumbents, pirate markets, and the new legal players who have begun to operate in the gap between them. Its current form is familiar, at this point, to anyone with an iPod.

Some further parsing of terms is necessary. Since the Berne and Paris accords of the late nineteenth century, national and international law have distinguished between piracy and counterfeiting, drawing—sometimes loosely—on the distinction between copyright infringement and trademark infringement. Traditionally, books were pirated and other branded manufactured goods were counterfeited. The value of the pirated good consisted of its reproduction of the expressive content of a work—the text rather than the pages and cover. The value of the counterfeited good lay, in contrast, in its resemblance to more expensive branded goods. The two forms of copying shared, broadly speaking, modes of production and distribution. Both required industrial-scale manufacturing. Both relied on clandestine distribution networks and often transborder

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2 A wave of historical inquiry on copyright emerged in the 1990s, with Goldstein (1994), Woodmansee and Jaszi (1993), and Rose (1993) among the most prominent.
smuggling. Both were most easily subject to interdiction at the border, and consequently to the efforts of customs services.

These common roots continue to shape the law and enforcement landscape to the extent that piracy and counterfeiting are often treated as a single phenomenon. But the practices that define them have increasingly diverged. Industrial-scale manufacture and transborder smuggling represent a rapidly diminishing share of the digital culture of the copy. Border enforcement is increasingly irrelevant to this culture, as—we will argue—is organized crime. Today, the conflation of piracy and counterfeiting has little to do with shared contexts or policy solutions and more to do, in our view, with the effort to “level up” the harms attributed to copyright infringement—most notably in relation to the health and safety hazards associated with substandard products and the social costs of “harder” forms of trafficking in drugs, arms, and people. The reflexive linking of the two in research and policymaking has become an impediment to understanding either phenomenon, and it is time to pry them apart.

**How Good (or Bad) Is Industry Research?**

At the risk of overgeneralizing, we see a serious and increasingly sophisticated industry research enterprise embedded in a lobbying effort with a historically very loose relationship to evidence. Criticizing RIAA, MPAA (Motion Picture Association of America), and BSA (Business Software Alliance) claims about piracy has become a cottage industry in the past few years, driven by the relative ease with which headline piracy numbers have been shown to be wrong or impossible to source. The BSAs annual estimate of losses to software piracy—US$51 billion in 2009—dwarfs other industry estimates and has been an example of the commitment to big numbers in the face of obvious methodological problems regarding how losses are estimated. Widely circulating estimates of 750,000 US jobs lost and $200 billion in annual economic losses to piracy have proved similarly ungrounded, with origins in decades-old guesses about the total impact of piracy and counterfeiting (Sanchez 2008; GAO 2010).

The preference for attention-grabbing numbers is inevitable when lobbying efforts drive the use of evidence. In the piracy field, this headline approach also drowns out a more circumspect body of industry findings and the considerable diversity of methods and core assumptions in the work of industry researchers. Several major industry groups—notably the IFPI (International Federation of the Phonographic Industry) and the ESA (Entertainment Software Alliance)—do not estimate monetary losses to industry in their regular reporting but only characterize the street value of pirate sales. A pirated CD purchased on the street for $2 is valued at $2 in this model, not $12. Consumer surveys, moreover, have largely supplanted earlier “supply-side” efforts to estimate the quantity of pirated goods in circulation—a practice that relied heavily

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3 See later in this chapter for a more detailed discussion. The BSA stopped calling these numbers “losses” in 2010 and now refers only to the “commercial value” of pirated software.

4 Circulated, an industry source noted, by the US Chamber of Commerce and government officials, not by the copyright industry groups.
on the observation of points of sale. These earlier methods drew together the opinions of local industry representatives and enforcement officers, producing interesting qualitative reporting that added significantly to our understanding of optical disc piracy. But as estimates of rates and losses, these methods represented a “best guess” rather than a serious quantitative method, and they rapidly became obsolete as the channels of media piracy expanded beyond the retail sale of pirated discs. This era of subjective estimates closed in 2004, when the MPAA rolled out an elaborate, multi-country consumer-survey methodology that mapped different types of piracy against the various release windows in the life of a film. In the process, the MPAA dropped its assumption of a one-to-one equivalence between pirated discs and lost sales in favor of a more complex estimation of “displacement effects” across the different types and periods of movie exhibition.

Several of the industry groups have pulled back from reporting altogether as they explore how to analyze the shift from optical disc to online piracy. The ESA conducted its last consumer survey in 2007 and is just beginning to release results from new online monitoring efforts. The MPAA demoed its consumer-survey methodology in a massive 2005 study of twenty-two countries, but the high cost of the effort (involving some 25,000 people surveyed) has thus far precluded a follow-up. The BSA’s method for measuring rates of software piracy, for its part, was developed in the late 1990s and is uniquely robust in the industry—in sharp contrast to its long-standing approach to losses. The IIPA (International Intellectual Property Alliance) consistently produces rich qualitative reporting and legal analysis on the countries it surveys as part of its Special 301 submissions to the Office of the United States Trade Representative (USTR). Overall, the industry record is both interesting and, arguably, improving.

Although all these efforts have their origins in industry lobbying, they are not simply subordinate to it. Industry research is shaped by a variety of pressures—including demands from sponsoring companies seeking to better understand the changing media markets in which they work. In this context, we see pressure for greater autonomy in the research efforts of these organizations, driven by a number of factors:

- Overlap with the market research needs of corporate sponsors, who in many instances are more interested in the analysis of consumer behavior than in reinforcing moral imperatives against piracy. Despite the RIAA’s very high profile in suing file sharers, for example, its domestic US research is focused primarily on understanding behavioral changes around music consumption. None of its domestic research, according to RIAA research staff, focuses on measuring monetary losses.

- Pressure from within research units to improve methods and the quality of findings. The

A related supply-side approach, used by the MPAA in “high-piracy” countries such as Russia and Brazil, offered a still more ambiguous basis for quantitative estimates. The number of pirated discs in circulation, the MPAA argued, equaled the total productive capacity of optical disc factories in a given country minus the number of known licensed copies. According to an IFPI representative, a more reasonable estimate of total production is 60%–70% of capacity.
professionalization of research staff over, in some cases, twenty years of piracy research and the challenge of analyzing the digital transition in media piracy, in particular, have placed a premium on methodological innovation and prompted a reconstruction of industry research strategies in the past half decade.  

The diminishing returns of outsized piracy claims. The rise of an Internet-based public sphere has eroded the industry’s ability to shape the representation and reception of its research. Industry research is now part of a larger—and in many contexts, highly skeptical—debate about the scope and impact of piracy and, more generally, the future of media business models. In our view, the lack of industry transparency and the advocacy-driven representation of findings have significantly devalued the industry research brand, to a point where greater independence, transparency, and dialogue are strongly in the industry’s interest.

The basis of credibility in this context is transparency. The main industry associations publish general descriptions of their methods but little about the assumptions, practices, or data underlying their work. It is impossible to evaluate BSA findings on rates of piracy, for example, without understanding the key inputs into the model, such as their estimates of the number of computers in a country, average software prices, or the “average software load” on machines in different contexts. It is impossible to evaluate the MPAA’s claims without knowing what questions the surveys ask and how they calculate key variables, such as the substitution effects between pirate and licit sales—a critical variable at the center of debates about the net impact of piracy. The IFPI aggregates consumer surveys from its local affiliates but indicates that each affiliate makes its own choices about how to conduct its research. There is no general template for the surveys—nor, for outsiders, any clarity about how the IFPI manages the obvious challenges of aggregating the studies.

Every report has its own secret sauce, including the underlying data and often the assumptions that anchor the methodology and inform the results. The typical rationale for withholding such information is its commercial sensitivity. This is certainly possible in some cases—notably around sales figures, which in some sectors are treated as trade secrets. But it can hardly explain the across-the-board reluctance of industry groups to show their work.

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6 In 2008, for example, the MPAA disclosed a three-fold overestimate in its claims about the incidence of piracy on college campuses. The initial report, based on survey results, attributed 44% of domestic piracy to college students. The revised statement listed it at 15%. Critics noted that 80% of college students live off campus, making campus networks arguably responsible for something closer to 3%. The initial figure was nonetheless used to justify anti-piracy provisions in the College Opportunity and Affordability Act of 2008, which have resulted, inter alia, in the introduction of spyware by campus ISPs and the termination of service on receipt of infringement notifications from rights holders.

7 It is worth mentioning the handful of studies we encountered that take both data disclosure and methodological description seriously—even if they rely in part on data or methods from other studies that cannot be adequately sourced. Work by Ernst & Young (USIBC/Ernst & Young 2008), StrategyOne (BASCAP/StrategyOne 2009), and TERA Consultants (BASCAP/TERA Consultants 2010)—all
This is a key difference between an advocacy research culture, built on private consulting, and an academic or scientific research culture whose credibility depends on transparency and reproducibility. It also departs—we note—from what governments increasingly require in the evidentiary standards that support policymaking. We explore this question in the next chapter in relation to the evidentiary requirements of the USTR and its Special 301 process, which for over twenty years has been the primary audience for industry research.

In our view, this secrecy has become counterproductive in an environment in which hyperbolic claims have undermined confidence in the industry research enterprise. The copyright industries no longer enjoy the benefit of the doubt. Openness and disclosure of the research underlying industry claims is an obvious response, and one that was supported by every industry researcher we spoke with. All were prepared to stand by their work. All were frank about the difficulty of studying piracy, the limitations of their methods, and the desirability of improving them. It is time, in our view, to let that impulse shape the industry research culture and the policymaking process.

**What Drives the Numbers Game?**

Industry investments in piracy research emerged in the context of growing corporate activism on IP issues in the late 1980s and 1990s—a period marked by the establishment of the USTR’s Special 301 process in 1988 and the WTO (World Trade Organization) in 1994. Special 301 created a means for industry groups to formally complain about perceived deficiencies in the IP law and enforcement practices of other countries. The IIPA, a copyright industry association founded in 1984 to advocate for stronger global IP policies, became the main intermediary between industry research and the Special 301 process. By the early 1990s, the annual Special 301 report had become, at least with respect to copyright, a vessel for IIPA-compiled findings and policy recommendations and the primary means of translating industry views into official US trade positions. For nearly two decades, the IIPA and the USTR have been, in key respects, symbiotic organizations—the research and policy wings of a larger enterprise.

Industry research went global in the wake of Special 301. The Special 301 process created demand for studies that could ground USTR recommendations, and industry groups mobilized to produce them. These research efforts relied heavily on business networks and local affiliates maintained by the industry associations. The MPAA, representing Hollywood studios, and the IFPI, a London-based association of record labels, had the most far-reaching international networks, with local affiliates or partners in most national markets. The BSA was founded in 1988 and quickly developed its own extensive network of affiliates. The ESA was founded in 1994 and has a comparatively small international presence but nonetheless produced studies in ten to twelve countries per year between the late 1990s and the mid-2000s.

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funded by the International Chamber of Commerce—comes out well by this standard. None of the work produced by the copyright industry groups makes a comparable effort.
IIPA reports tend to focus on qualitative accounts of enforcement efforts and on prescriptions for legislative and administrative reform. They detail successes and failures from the previous year and evaluate them as signs of progress, good faith, or backsliding in the fight against piracy. From the outset, they also introduced two quantitative benchmarks for piracy that acquired tremendous importance in policy debates: (1) estimates of the rates of piracy in different national markets and (2) estimates of the financial losses suffered by US industry in those markets. Consistently, these numbers headlined Special 301 submissions and wider debates about copyright and enforcement. They also acted as a universal solvent for widely differing industry research inputs and methods—creating a perception of consistency and confidence in the loss figures, in particular, that the underlying research usually did not support. Where the IFPI was wary of drawing conclusions about losses, for example, the RIAA—drawing on the same data provided by local affiliates—did calculate losses for countries it considered high-priority targets for enforcement. Although the ESA avoids the language of losses in its reports, its estimates of pirated street sales—totaling some $3 billion in 2007—found their way into the industry-loss column in IIPA reports.

How Much Piracy Is There?

We have not made our own estimates of rates of piracy. Piracy is clearly ubiquitous in the developing world, and we see little prospect of (or benefit from) establishing more precise figures. Although we have doubts about the reliability of industry methods and—in many cases—the definitions of piracy used, we view the IIPA-cited rates as at least plausible and very possibly as understating the actual prevalence of pirated goods. When pressed, we find that this is often the view of industry representatives themselves.

In our view, understatement of the numbers is especially likely in developed countries, where capacities for digital distribution, storage, and sharing of media files have exploded in recent years. We see no clear strategy for measuring this wider culture of the copy in most sectors of the media market (with a partial exception for software). Although all the industry groups have invested heavily in online tracking and surveillance—including, but not limited to, P2P (peer-to-peer) networks—these simply do not account for the many ways in which digital files are now shared. P2P services, while prevalent, represent a diminishing share of these available channels. Increasingly, P2P is complemented by “file locker” sites like RapidShare or Megaupload, by unauthorized streaming services, and by the growing ease of more direct personal sharing of media files, currently measured in terabyte-sized portable hard drives. We have seen no studies that explore this evolving high-end personal-media ecology in any detail. Consumer surveys, which the MPAA and the IFPI have used to track the multiple channels of distribution affecting their goods, begin to run up against the problem of media

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8 Though not, at present, on its website: http://www.theesa.com/policy/antipiracy_faq.asp
collections so large that they are no longer actively managed—or manageable—by consumers. The emergence of cloud-based media services and their fusion with local storage promises to accelerate this decline of the personal collection.

For the past four to five years, industry research has struggled with this changing landscape. The shift from point-of-sale or production-side observations to consumer-survey methods was intended to address the transition from optical disc piracy to a mixed economy of discs and downloads. In the case of film, in particular, it was an attempt to develop better models of how consumers respond to complex industry windowing strategies as films pass from theatrical release, to pay-per-view, to DVD release, to commercial broadcast, and so on down the line. The shift toward online monitoring, in turn, reflects the increasing irrelevance of optical disc piracy in high-value markets, such as the United States and Western Europe, where retail-level piracy has all but vanished and the informal street trade has diminished significantly. In 2007, the ESA became the first industry organization to decide that the optical disc channel was no longer worth tracking. Its new online monitoring tools debuted in the 2009 Special 301 submission by the IIPA.

Despite the tone of certainty that accompanies industry press releases about piracy, most of the industry researchers we spoke with showed considerable circumspection about their ability to accurately measure either rates or losses. Increasingly, industry researchers and representatives talk in more general terms about the magnitude of piracy, rather than about precise numbers. The USTR, for its part, appears to share this reticence and no longer includes top-line estimates for rates or losses in its Special 301 reports.

Efforts to encourage more independent research organizations to validate industry findings have also been problematic. When the International Chamber of Commerce (ICC) sponsored the OECD (Organisation for Economic Co-operation and Development) to conduct a study on The Economic Impact of Piracy and Counterfeiting, the resulting 2007 report endorsed the notion of major economic harms and cited industry estimates of losses but also concluded that “the overall degree to which products are being counterfeited and pirated is unknown, and there do not appear to be any methodologies that could be employed to develop an acceptable overall estimate.” When the OECD followed up with its Piracy of Digital Content report in 2009, it relied on narrow studies of particular products or channels and qualitative claims about the scope of piracy. When the US Government Accountability Office (GAO) released its report on piracy losses in March 2010, it broadly followed the OECD line—repeating the “consensus” about losses, but without endorsing any particular account of them or method for determining them. When the World Intellectual Property Organization (WIPO) opened its Advisory Committee on Enforcement meeting in November 2009, it spent three days discussing the need for more research.

OECD and GAO hedging, in our view, is a sign that the golden age of big piracy numbers is past. Industry groups haven’t had much success exporting their claims into more independent research bodies, and they don’t appear willing—yet—to pull back the curtain
from their own research practices in a way that would allow them to engage critics. This is a recipe for diminishing political returns. But the returns to date have, by all accounts, been considerable. Across a wide range of interviews, industry representatives and researchers appeared relatively comfortable acknowledging uncertainty in their research results—in our view, because they are still enjoying the advantages of earlier, uncontested discursive authority. As several representatives indicated, the case for massive losses has been made.

Absent new data, it is less clear what happens over time to the narratives of progress and backsliding on piracy that inform the enforcement conversation outside the United States. The conventional wisdom, supported by several studies (Thallam 2008; Varian 2004), is that international rates of piracy inversely (and loosely) track wider measures of socioeconomic development, such as per capita GDP (gross domestic product).

| Table 1.1 Most Recent Industry-Cited Rates of Piracy [% of the market] |
|-----------------|--------|--------|--------|
| **Software** | **Film** | **Music** | **Games** |
| Russia | 67 | 81 | 58 | 79 |
| Brazil | 56 | 22 | 48 | 91 |
| India | 65 | 29 [90]** | 55 | 89 |
| United States | 20 | 7 | — | — |
| United Kingdom | 27 | 19 | 8 | — |

* PC game piracy is modeled in BSA software piracy rates.
** ESA rates for game piracy include console games and other formats.
***MPAA number (recent Moser Baer estimate)

Source: Author based on BSA/IDC (2010b), IIPA (2010a), MPAA (2005) data, and interviews.

Given the relatively uniform global pricing for most media goods, a loose correlation is not surprising: the first determinant of access to media markets is income. Nor is the general assumption that countries “grow” themselves out of high piracy levels as the number of high-income consumers increases (and, correspondingly, as formal markets crowd out informal ones). Beyond this general tendency, however, we are skeptical of efforts to draw more precise trend lines from year to year or to establish cause-and-effect relationships with enforcement efforts. We think that industry research methods simply do not permit reliable estimates of change at this level of detail. Our work suggests that the scale of piracy has, rather, been determined primarily by shifts in technology and associated cultural practices, from the rise of CDs and VCDs (video compact discs) in the 1990s, to the explosive growth of DVDs in the early 2000s, to the more recent growth of broadband Internet connections. The movie piracy business, for instance, was transformed by the wave of cheap Chinese DVD players and burners that hit the market in 2003–4,9 which increased both the supply of and the demand for pirated DVDs.

9 “In 2000, some 3.5 million players were produced [in China], of which nearly 2 million were for export. By 2003, China’s DVD player output had soared to 70 million units—about three-quarters of worldwide output—of which some 5 million were sold domestically” (Linden 2004). Total production peaked in 2006 at 172 million players, of which a little over 19 million were sold domestically (CCID
Those DVD players, in turn, were often able to play MP3, MP4, and other digital formats, creating an infrastructure for the next wave of digital distribution. Enforcement, in our view, has played only a minor role in comparison to these larger structural factors.

Our reservations about measurement extend to the BSA’s comparatively robust model of “rates” of piracy, which underpins the organization’s very precise claims about changes in levels of piracy from one year to the next. The BSA studies rely on the relatively small and stable (and therefore predictable) number of packaged software applications installed on an average computer—what it calls “average software load,” or ASL. ASL allows the BSA to estimate the total installed software base in a country and to compare that number to legal sales. The difference between the two is attributed to piracy. The model has no counterpart in music or film, where the size of personal libraries is subject to huge and growing variation. While solid in principle, however, the model is still very dependent on complicated inputs that the BSA’s research vendor, the IDC (International Data Corporation), does not share. Conflicting estimates of the size of retail markets, for example, are relatively common outside the United States and Europe, as is difficulty in establishing how many computers are in use in different countries. In the case of Russia, for example, where the BSA prominently cites a 16% decrease in the piracy rate between 2005 and 2009 as evidence of effective enforcement strategies, we were unable to independently reproduce those inputs.

What Is a Loss?

Because the primary audiences for piracy research have been the USTR and US Congress, most industry research has focused on establishing the scale of US losses rather than losses to non-US businesses or other national economies. Although nearly all of these efforts involve the participation of global networks of industry affiliates, data flows up and only occasionally results in independently released studies of local impact. With few exceptions, local rights-holder groups have conducted very little research outside this framework.

In the last three to four years, however, the international associations have begun to make stronger efforts to localize anti-piracy discourse by establishing loss figures for domestic economies. The BSA, in particular, has worked to introduce the concept of domestic losses associated with what is, invariably, the piracy of mostly US-produced software. By the same token, in countries where distinct domestic stakeholders have emerged, governmental and industry groups have begun to develop their own research capacities to assert more control over the evidentiary basis of enforcement discussions. Recent studies in Russia, India, Mexico, and China point in this direction and intermittently part ways with the US-industry narrative.10

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10 See, for example, the 2008 Survey on Chinese Software Piracy Rate, which somewhat disingenuously tries to shift the emphasis from overall rates of piracy to the street value of pirated software within the larger market—a calculation that yields a 15% share of revenues, rather than the 80% share of the market claimed by the BSA in 2009. The survey also claims that operating system piracy dropped from 68% in 2006 to 29% in 2008 (Chinese State Intellectual Property Office 2009).
Some of the assistance we received from local industry and governmental sources reflects growing recognition of the importance of research in setting the terms of the enforcement dialogue. Inevitably, power in trade negotiations is partly a matter of who shapes the evidentiary basis on which claims and counterclaims are made.

So far, these local efforts have been, at most, skirmishes around the main story of rapidly rising global losses. And for most of the past decade, this story has belonged to the BSA. Through 2010, BSA-reported losses were an order of magnitude larger than those of any other copyright industry, and they accordingly dominated discussions of the economic impact of piracy. In 2003, the BSA claimed $29 billion in global losses. By 2008, it claimed $53 billion. Much of this growth was attributed to rapid computer adoption in emerging economies. Rates of adoption in Russia, for example, averaged 50% per year between 2003 and 2008—and provide some context for the claim that Russian piracy losses rose from $1.1 billion in 2003 to $4.2 billion in 2008. Overall rates of piracy have nonetheless hovered around 40% since this round of studies began in 2003—stability the BSA attributes to offsetting decreases in software piracy in developed countries.

The MPAA, for its part, claimed $6.1 billion in US studio losses in 2005—the last year in which it reported. The RIAA came next with a claim of $5 billion in global losses to record companies handling US acts. The entertainment software industry made the less direct claim that the street value of pirated games in 2007 totaled $3 billion (a number that did not include Internet downloads and that certainly could have approached BSA levels had they used retail value).

Large industrializing and middle-income countries almost always place highly on these lists. Russian software piracy losses in 2008 ($4.2 billion) were edged out only by China ($6.6 billion) and the United States itself ($9.1 billion); Brazil trailed by roughly two and a half billion dollars ($1.64 billion). The United States also led the way in film losses according to the MPAA’s 2005 report, totaling some $1.2 billion, followed by Mexico at $480 million (three through six were the United Kingdom, France, Russia, and Spain). The appearance of high-income countries in the rankings generally reflects their much larger domestic markets, in which comparatively low rates of piracy can still generate high monetary losses.

Increasingly, direct losses are only the starting point of this conversation. Recent studies

11 BSA reported losses remained roughly steady throughout the late 1990s and early 2000s, and stood at $11 billion in 2002. In 2003, the BSA revised its list of tracked software to include Microsoft Windows and a number of consumer applications—effectively doubling the size of its baseline software market and making comparison with the earlier studies difficult. Reported losses took an immediate jump, and also began increasing at a roughly 30% annual rate, approximating the rate of growth of the global software market. In 2009, in the context of the global recession, the reported value of pirated software declined slightly to $51.4 billion (BSA/IDC 2010b).

12 The uneven impact of the global recession and the BSAs change in its definition of losses (discussed later) make 2008 a better representative of the trends of the past decade than 2009. In 2009, for example, reported Russian losses fell from $4.2 billion to $2.6 billion and Indian losses from $2.7 billion to $2.0 billion, while Brazilian losses climbed from $1.6 billion to $2.2 billion, and Mexican losses from $820 million to $1 billion.
have also begun to estimate the wider impact of piracy on national economies, based on losses to the secondary and tertiary businesses that rely on copyright, from music stores to security services for film production. This approach was consolidated in a series of studies conducted by Stephen Siwek in 2006–7 on behalf of several of the major industry associations. By using official US economic multipliers (RIMS II) for different industrial sectors, Siwek argued that $5 billion in losses to the US record industry actually represented a loss of $12.5 billion to the US economy (Siwek 2007a). Direct losses of $6 billion to the movie industry meant an overall economic loss of $20.5 billion (Siwek 2006). The total lost output to the US economy from piracy, Siwek argued, was approximately $58 billion in 2007 (Siwek 2007b).\footnote{In arriving at this number, Siwek sidestepped the BSA’s de facto one-to-one replacement ratio between pirated software and lost sales and instead appears to have discounted BSA loss estimates by 50%–60%. TERA Consultants did the same in a similar study of Europe in 2010.}

Most studies now also translate such numbers into job losses. This practice was pioneered by the BSA in 2007 when it developed a formula for converting future decreases in the rate of piracy into anticipated job growth—numbers that it calculated per country in an attempt to promote stronger local commitments to enforcement. Using his own version of this approach, Siwek calculated that global piracy cost the United States some 373,000 jobs in 2005 alone. Putting the Siwek method to work in the European Union in 2010, an ICC-funded study projected a cumulative loss due to piracy of between 611,000 and 1,217,000 jobs in Europe between 2008 and 2015 (BASCAP/TERA Consultants 2010).

Studies of economic effects are important but raise serious methodological challenges, of which we will highlight two:

- the difficulty of determining the substitution effects associated with piracy—that is, the likelihood that a pirated copy substitutes for a legal sale—and the importance of the price/income effects in that determination; and

- the importance of the countervailing benefits of piracy to both industry and consumers in any model of total economic impact and, consequently, the importance of treating piracy as part of the economy rather than simply as a drain on it.

Although a variety of studies now model substitution effects,\footnote{For longer treatments of the substitution-effects literature, see Huygen et al. (2009) and Oberholzer-Gee and Strumpf (2009).} we are aware of only one that has attempted to model countervailing benefits: “Ups and Downs: Economic and Cultural Effects of File Sharing on Music, Film, and Games” (Huygen et al. 2009), commissioned by the Dutch government. Among the industry studies, all now acknowledge that substitution rates are less than one, but none offer any account or even acknowledgment of countervailing benefits. Consistently, they model only one side of the market—the industry losses but not the corresponding consumer surplus.
Substitution Effects

Claims of a one-to-one correspondence between pirated goods and lost sales are increasingly rare and are no longer part of the official methodologies of any of the largest industry groups. At best, they are an artifact of a period when industry research was based mostly on observations of retail supply rather than consumer behavior. Such assumptions had their political uses, however. One-to-one correspondence made for the highest possible loss estimates and a simple case against unauthorized use in all its forms. Problems with this assumption were flagged as early as 1992, when the Italian government objected to MPAA efforts to put it on the Special 301 “Priority Watch List” for an alleged $250 million annual loss in theatrical revenues due to video cassette piracy (Drahos and Braithwaite 2007). But such objections were isolated and generally ignored.

The MPAA held to a one-to-one equivalence in its research until 2004, when it shifted from retail observation to a consumer-survey-based methodology. The RIAA’s practices are not public, but research staff indicated in 2009 that they take substitution rates into account when estimating losses for Special 301 reports (they do not reveal which rates). The ESA and the IFPI have never relied on the one-to-one claim.

The BSA position is often described as a claim of one-to-one correspondence because it calculates losses (or, beginning in 2010, what it calls the “commercial value of unlicensed software”) by multiplying the estimated number of pirated copies of tracked products by a “blended average price” of those products across the different distribution channels (retail, volume licensing, “free” open-source distribution, and so on). Although functionally one-to-one, the BSA insists that its reasoning is more complex and reflects the assumption that although less piracy would not directly produce an equivalent increase in sales, it would do so indirectly by expanding economic activity, which would lead to increased sales. According to the BSA, “The two countervailing forces seem to cancel each other out” (BSA/IDC 2003). As recently as 2009, the IDC argued that this effect “might even underrepresent” true losses to the industry (BSA/IDC 2009). In practice, they offer no account of substitution effects and, consequently, no account of consumer behavior.

In music and film markets, in contrast, substitution effects have become central to the debate about losses and changing market structure. Here, studies have tried to weigh substitution effects against possible sampling effects that describe additional purchases that follow from greater exposure to new goods. With respect to music, nearly all independent studies acknowledge the presence of both effects, albeit with significant variation in the findings, from alleged positive net effects on sales due to piracy (Anderson and Frenz 2008), to negligible impact (Huygen et al. 2009; Oberholzer-Gee and Strumpf 2007), to estimates of up to 30% displacement—

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15 In correspondence with us in 2010, the BSA described this more broadly as a “linear relationship” between lower piracy rates and larger software markets—an approach that could, at least, admit ratios of less than one-to-one but that in practice doesn’t.
of legal digital downloads (Zentner 2006). Several studies also identify a correspondence between piracy and increased media consumption in general, suggesting that piracy is most common among avid media consumers and reinforces or complements those habits. There are fewer studies of substitution effects for film, but a number of these show a stronger negative impact on theatrical visits and DVD sales (Peitz and Waelbroeck 2006; Bounie, Waelbroeck, and Bourreau 2006). Since Siwek’s studies are arguably a bellwether of what the industry is prepared to think about this question, circa 2007, it is worth noting that he adopts a 65% substitution rate for physical piracy of music (that is, of pirated CDs replacing legal sales) and a 20% rate for downloads—both within the ballpark of existing studies.

We have no particular contribution to this debate and tend to view substitution and sampling rates as moving targets tied to changing gaps in convenience, quality, and price between licit and illicit services. With low-cost, high-quality, Internet-based music and video services emerging, moreover, the direction of the substitution becomes increasingly unclear. Do CD or DVD purchases compete with P2P downloads or with legal streaming services? Or with rentals, as Smith and Telang (2009) have tried to model? Does file sharing also displace secondary services around music and film, such as specialty stores or fan communities organized around print and web journals? The problem is far from new and has been at the center of long-standing tensions between record companies and radio stations over the direction of the benefits of radio airplay (Liebowitz 2004). As distribution channels proliferate, it will become still more complex.

We do note that such studies are conducted almost entirely in high-income countries and that the price/income ratios in most parts of the world dictate very different outcomes. The 65% physical-substitution rate and the 20% download rate simply make no sense in reference to Brazil or India, where purchasing power is far lower. The MPAA’s 2005 movie piracy study is said to have explored substitution effects in the countries it surveyed—suggesting a potential wealth of data on price and income effects—but the MPAA has not released its findings or shared them privately (with us or, more surprisingly, with either the OECD or the GAO, both of which conducted their studies in the context of new enforcement initiatives). Other data points on this question remain scarce. One recent study of the relationship between file sharing and movie ticket sales in Hungary, a country with per capita GDP well below US and Western European levels, finds no measurable relationship between the two (Balázs and Lakatos 2010). When John Gantz, research director at the IDC, was asked about the impact of high Western software prices on piracy in developing countries, he suggested that possibly only one in ten unauthorized copies represented a lost sale. Absent clearer data, we would call this a plausible guess—and one that would have dramatically reduced the $29 billion loss that the BSA claimed in 2003. As Gantz observed, “I would have preferred to call it [the $29 billion] the retail value of pirated software” (Lohr 2004). In 2010, Gantz got his wish when the IDC started referring to these numbers as “the commercial value of unlicensed software” (BSA/IDC 2010b). This seemingly minor shift is, in fact, quite consequential: it salvages the one-to-one correspondence
at the heart of the IDC method, putting it on firmer methodological ground. But any claims about losses are now gone.

**Countervailing Benefits**

Since 2006, industry-loss claims have been recycled into a wide range of broader estimates of the social and economic impacts of piracy. In our view, the current generation of economic-impact studies, including those of Stephen Siwek, the IDC, and TERA Consultants, simply does not provide a basis for understanding these wider impacts. Many of the problems we discussed earlier are repeated at this level, such as the lack of disclosure of the underlying datasets and key assumptions. But in extrapolating losses beyond the affected industries, these studies also introduce new problems. Fundamentally, they all misrepresent the relationship between piracy, national economies, and international trade. Consistently, none of them model the other side of the transaction—the consumer surplus—in describing overall economic impact. Two basic accounting problems have become emblematic of this approach.

First, domestic piracy may well impose losses on specific industrial sectors, but these are not losses to the larger national economy. Within a given country, the piracy of domestic goods is a transfer of income, not a loss. Money saved by consumers or businesses on CDs, DVDs, or software will not disappear but rather be spent on other things—housing, food, other entertainment, other business expenses, and so on. These expenditures, in turn, will generate tax revenue, new jobs, infrastructural investments, and the range of other goods that are typically cited in the loss column of industry analyses.

To make a case for national economic harms rather than narrower sectoral ones, the potential uses of lost revenue need to be compared: the foregone investment in the affected industries needs to represent a better potential economic outcome than the consumer surplus generated by piracy (Sanchez 2008). The net impact on the economy, properly understood, is the difference between the value of the two investments. Such comparisons lead into very complicated territory as marginal investments in different industries generate different contributions to growth and productivity. There has been no serious analysis of this issue, however, because the industry studies have ignored the consumer surplus, maintaining the fiction that domestic piracy represents an undiluted national economic loss. For our part, we take seriously the possibility that the consumer surplus from piracy might be more productive, socially valuable, and/or job creating than additional investment in the software and media sectors. We think this likelihood increases in markets for entertainment goods, which contribute to growth but add little to productivity, and still further in countries that import most of their audiovisual goods and software—in short, virtually everywhere outside the United States.

Second, and relatedly, the direction of trade matters greatly in calculating where losses (and benefits) fall. The global footprints of many software and media companies make the breakdown of revenue streams complicated, but the larger dynamic is relatively simple: With regard to imported IP goods, legal sales represent an outflow of revenue from the national economy. The piracy of IP imports, conversely, represents a welfare gain in the form of expanded “free”
access to valuable goods. Because of US dominance of global film and software markets, the piracy of these goods in other countries falls overwhelmingly into this category—with revenue “lost” to US companies but “gained” by consumers on the receiving end.

Both Siwek and TERA have problems with this distinction. Siwek’s estimate for film piracy, for example, starts with the $6.1 billion MPAA estimate of studio losses and applies a multiplier of roughly three (drawing on US Bureau of Labor Statistics sectoral models) to arrive at an estimate of total economic losses. Even accepting the MPAA numbers, however, this isn’t the right starting point. The MPAA attributes some 20% of losses ($1.3 billion) to US-based piracy, which is not lost to the national economy but simply spent in other ways. The remaining $4.8 billion in overseas losses, in contrast, is “lost” to the United States in the first instance, but even this sum will continue to be spent and circulate in ways that will be partially recouped by US firms.

The closely related TERA study, for its part, assumes that losses fall solely on EU companies. For movies, music, and software markets in Europe, however, this is manifestly untrue. Hollywood films account for 67% of the EU market (European Audiovisual Observatory 2010), with ticket revenues roughly equally split between distributors (the studios) and local exhibitors (Squire 2004). Microsoft, Adobe, and other US-based companies have market shares well over 90% in many of the core business software categories. For film and software, consequently, European countries are IP importers, and any comparison of domestic costs and benefits should first include the outflow of revenue. Under these circumstances, Europe might well realize a net welfare benefit from audiovisual and software piracy.

A recent Dutch study of piracy makes a good case for exactly that in the case of music. Music is a more complicated sector to disaggregate due to the strong presence of local repertoire in most countries—a factor that should weigh in favor of real domestic losses. Nonetheless, Huygen et al. (2009) estimate the net welfare impact of music piracy in the Netherlands—industry losses compared to the consumer surplus—to be a positive €100 million per year. The IDC claims that roughly 80% of software revenues remain in Europe (BSA/IDC 2010a). Presumably this includes software produced in Europe, which would imply a less favorable split for foreign products. The IDC does not explain how it arrives at these numbers.

The TERA study buries these issues in the very last paragraph of its final appendix: “To be fully consistent, we should have considered the proportion of local/foreign pirated products (for all the covered creative products), but such data were not available.” In our view, this omission fatally compromises the study. It makes a big difference, in the end, whose goods are pirated.

The 2009 Dutch study provides a strong set of reference points despite its narrow focus on the file sharing of movies and film in the Netherlands. Huygens et al. examine the impact of file sharing on both domestic and international producers, explore substitution effects in depth, and conclude that Dutch consumers enjoyed a net consumer welfare gain of around €100 million per year (in a country of sixteen million). In our view, a version of this analysis applied to developing countries would find substantially higher net benefits, based on much lower substitution rates due to lower income, the generally smaller scale of domestic culture industries, and the employment generated by the informal economy. The inclusion of business software, with its massive contribution to economic productivity, would push it higher still.
Among the industry consultants, only the IDC has shown much interest in determining how revenues are apportioned between domestic and foreign economies—interest we read at a general level as pushback against the perception that pirating foreign vendors has no domestic costs and more narrowly as pushback against local-development-based arguments for open-source software adoption. These estimates are the basis of the IDC’s various papers on the domestic economic impact of reductions in piracy, which argue that $1 recouped from piracy generates $3–$4 of secondary domestic economic activity (BSA/IDC 2010a). When the IDC, in a study prepared for Microsoft, tried to characterize the value of the Microsoft “software ecology” outside the United States, it argued that $1 in Microsoft revenues generates $5.50 in local business revenues (IDC 2009).

As usual, we must ask: compared to what? We see no reason to assume that the use of pirated software contributes less to economic growth than the use of licit software: a pirated copy of Windows or Photoshop will generally serve as well as a legal one. Relatedly, we see no reason to assume that pirated use does not also contribute to the growth of secondary markets for software services. To the best of our knowledge, no secondary applications or services require validated copies of the primary software platforms.

In contrast, we see a plausible case that Microsoft products have added value because of the positive network effects associated with Microsoft’s dominance of the desktop (well over 90% in developing markets), which make Windows and related products de facto standards. But as the IDC’s numbers indicate, this dominance in low- and middle-income countries is attributable almost entirely to software piracy, rather than legal licensing. As we will argue later, such network effects make piracy a key feature of software business models in emerging economies.

Rich software environments—such as the Windows environment—are basic infrastructure in modern economies and have a large positive impact on productivity. But the IDC studies offer no help in explaining why these benefits depend on legally licensed software or, for that matter, on Windows rather than its competitors. Instead, the IDC leaves readers to infer that other products add less or, potentially, nothing to local economies. By modeling only part of the market, the IDC studies limit themselves to a promotional role and do little to illuminate the relationship between piracy, jobs, and economic growth. It is this underlying complexity (and the unwillingness of the industry groups to address it) that led the US Government Accountability Office to discount all current estimates and conclude that “it is difficult, if not impossible, to quantify the net effect of counterfeiting and piracy on the economy as a whole” (GAO 2010).

19 The IDC breaks this number down by country, finding the domestic share of benefits from software purchases to be 76% in India, 73% in Brazil, 61% in Russia, and 68% in South Africa (BSA/IDC 2010a).
How Is Enforcement Organized?

The copyright industries invest heavily in enforcement advocacy and anti-piracy campaigns, from legislative lobbying, to police efforts to protect theatrical release windows for new films, to software legalization programs for governments and businesses. These efforts involve a wide range of actors operating at different geographical and political levels, including industry associations; local, national, and international law enforcement; licensing agencies; multilateral organizations like the WTO and WIPO; US government agencies; US and international chambers of commerce; and many others.

Such networks expanded dramatically in the past decade as countries implemented national enforcement plans. Both the number of groups involved and the level of financing of anti-piracy efforts rose significantly in the period, before tailing off in the wake of the recent global financial crisis. Predictably, budget numbers documenting this trend are hard to come by. Industry groups are reluctant to discuss enforcement budgets—especially in relation to their efforts in developing countries, where local associations and enforcement efforts are often funded by multinationals. Our rough estimate of the scale of operations of the top-level industry groups is in the low hundreds of millions of dollars per year. In 2009, CEO John Kennedy put the IFPI’s enforcement budget at around 75 million British pounds ($120 million) (enigmax 2009)—a sum representing roughly half of the IFPI’s estimated total budget of $250–300 million. The RIAA, for its part, has had a budget of $45–55 million per year in the last decade—much of it devoted to anti-piracy lobbying and enforcement efforts. Prior to cutbacks in 2009, the MPAA’s anti-piracy budget was described as roughly $60–75 million per year—again approximately half its total budget (DiOrio 2009). The BSA is a $70-million-per-year organization, a large portion of which is self-financed through anti-piracy settlements (some $55 million in 2007, with roughly $10 million coming from member dues). The ESA is a $30-million-per-year organization with a comparatively small enforcement footprint (its primary responsibility is the annual E3 Expo tradeshow). The US Chamber of Commerce plays a significant role in both anti-piracy research, lobbying and educational initiatives, as do its many international franchises and analogs, including the International Chamber of Commerce and the 115 American Chambers of Commerce located around the world. We were unable to determine how much of the US Chamber’s $150 million budget (2008) is devoted to IP issues. A number of the larger corporate sponsors of these groups, including Microsoft and Nintendo, also maintain anti-piracy operations and finance others. Microsoft’s anti-piracy legal team in Redmond alone reportedly has a staff of around seventy-five (Hachman 2010).

Growth has not been without its challenges. The perception of low returns on investment has been a problem for all the organizations involved, and all except the BSA have faced significant budget cuts and/or challenges from membership in the past three years (Di Orio 2009).
The relatively modest size of the core industry groups compared to the scale of the pirate economy is an indicator of why stronger public enforcement is viewed as a top industry priority. The 2008 Pro-IP (Prioritizing Resources and Organization for Intellectual Property) Act, now coming into effect in the United States, called for $429 million in additional expenditures on enforcement between 2009 and 2013, with the sum rising each year (Congressional Budget Office 2008). Overall public expenditure, unfortunately, is almost impossible to determine in the United States because budgets for anti-piracy efforts are rarely broken out from more general law enforcement activities. We have seen no such estimates elsewhere either, though our country studies of Russia, Brazil, and South Africa documented comparable increases in police and other enforcement funding as new national-level enforcement plans went into effect in the past five or six years.

The primary goal of industry activism has been to shift enforcement responsibilities onto public agencies. Outside the United States, the USTR and industry groups have worked consistently to expand public investment in enforcement and increase private oversight of those efforts. Public-private partnerships already structure every stage of the enforcement business, from international policy formation to local policing. This model was visible (and highly controversial) in recent negotiations over a new international treaty on enforcement called ACTA (the Anti-Counterfeiting Trade Agreement), which was developed through private consultations between industry stakeholders and trade officials from friendly states.

Within countries, this model has given rise to webs of interlocking enforcement efforts and advisory groups that blur lines between public and private power. At the local level, industry groups both subsidize and participate in investigations, evidence collection, and raids. Inevitably, the increasing scale and complexity of such efforts brings coordination costs, which has led to the creation of new layers of bureaucratic intermediaries—liaison officials, “IP Czars,” and other officials charged with managing the new cross-agency, public-private enforcement agendas.

**Buying Enforcement**

In Brazil, police and government-agency units specializing in copyright enforcement depend on industry groups for logistical and financial support. According to one recent report on São Paulo’s “Immaterial Property Police Department,” these gifts range from printer cartridges, to car repair, to a refrigerator and new floor for the police department building. In Rio de Janeiro, we documented Association for the Protection of Movies and Music (Associação Anti-Pirataria de Cinema e Música—APCM) provision of police equipment, transportation for raids, locksmiths, and other support that make it unclear where the boundary between public and private policing lies. Because policing in Brazil is defined as a strictly public function, this private subsidization raises questions about the independence and impartiality of the police and has begun to attract scrutiny. In São Paulo, the APCM’s gifts to police are being investigated by the public prosecutor. The APCM claims its donations are legal. As of late 2010 the matter remains unresolved.
Closer public-private coordination is almost always accompanied by industry calls for expanded police powers and the wider application of criminal law to copyright infringement. The IIPA has a list of standard demands for reengineering law enforcement around the needs of copyright holders, including provision for ex officio police powers (which empower police to act directly against suspected infringement without a complaint); greater use of ex parte hearings (which drop requirements to have the defendant present) and ex parte searches (which empower industry to conduct raids with lower police or judicial oversight); the application of anti-organized-crime statutes to commercial infringement (often modeled on US RICO laws); dedicated IP courts; longer prison sentences; higher fines; and diminished evidentiary requirements.  

Many of these measures are responses to the inefficiency of civil procedures in developing countries, which makes infringement lawsuits cumbersome and expensive. Our India, Russia, and South Africa studies document these problems in some detail. But expanded police power and diminished judicial safeguards are viewed in many countries as recipes for abuse—especially in contexts where police forces have been deliberately decentralized or subjected to sharp judicial checks on power, as in Mexico and Brazil. The private direction of public enforcement is also problematic on a number of levels, and raises concerns about accountability, fairness, and due process.

The lack of a clear enforcement endgame contributes to these concerns. The moral framework of anti-piracy campaigns makes it difficult to articulate an acceptable level of piracy that would set a boundary against the erosion of civil liberties. In this environment, enforcement policies have a strong tendency to fail up. Measures that do little more than inconvenience pirates will tend to be portrayed as insufficient rather than misguided, creating pressure for stronger, more pervasive, more expensive enforcement. Although greater public capacity to enforce might, in theory, diminish the incentives for private involvement, we have found no examples of private-sector pullback from this role in any of the countries examined in this report. Indeed the opposite is often true: greater public-sector buy-in on enforcement signals compliance, which spurs greater private sector involvement and investment. Although industry association members have shown signs of balking at the high costs of enforcement, they have expanded efforts to shift costs to other actors, including governments and ISPs.

Our country studies document these tensions between public and private power in considerable detail. Close relationships between industry and public officials are a large part of this story, most visible at the policymaking and administrative levels (see chapter 2). But these tensions also play out in less visible ways on the ground—in some cases with remarkable

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20 Such as permission to destroy seized goods on the spot rather than hold them as evidence and the right to bring charges based on the “sampling” of seized goods rather than a full inventory. In Brazil, informants described the last two points as the highest priorities for enforcement organizations—above even “three-strikes” legislation for Internet-based infringement. As one informant noted, the benefits of a three-strikes law remain hypothetical, but the evidence-storage costs incurred under current law are concrete.
consistency from one country to another. Anti-piracy efforts at this level are not just about policing and courts but are arguably better understood in terms of confiscation and selective enforcement.

The Confiscation Regime

Predictably, raids scale more easily than due process. Although no consistent or overall numbers are available, industry organizations and government agencies track and occasionally report the numbers of raids, arrests, and convictions in which they play a part. Most of the time, these numbers tell a striking story. In 2008, the Mexican Association for the Protection of Film and Music initiated 3,170 raids, resulting in 120 arrests and 7 convictions. In a single weeklong campaign during Russia’s major anti-piracy crackdown of 2006–7, the Ministry of the Interior reported 29,670 “actions,” generating 73 criminal cases and an unspecified number of convictions. The Russian BSA, in 2007, initiated 589 raids on local businesses for “end-user infringement,” obtaining convictions in 83 cases. The Brazilian APCM reported 3,942 raids in 2008, leading to 195 convictions, most of which resulted in suspended sentences. Between 2000 and 2007 in India, there were 6 convictions for piracy (in 2008, the Indian Music Industry—IMI—reported 60).

Figure 1.1 Raids and Convictions in Brazil

Exceptions to this lopsided record generally come in the context of major campaigns against street vendors, in which investigative procedures have been streamlined or cases routed through the most accommodating courts. The South African film industry group SAFACT (Southern African Federation Against Copyright Theft), for example, reported 973 raids during its anti-vendor push in 2008, leading to 617 arrests and 447 convictions—a nearly tenfold increase in convictions over 2007. Nearly all resulted, however, in small fines or suspended sentences.

There are a variety of explanations for this disproportion—none mutually exclusive in our view. Due process in all the countries examined here is slow and inefficient, often in the
extreme. Criminal cases can take several years to resolve and civil cases even longer. The cost of bringing charges in criminal and civil court is accordingly very high, and the prospect of significant fines or other penalties that can act as wider “deterrents” correspondingly low.

In such contexts, IIPA and other industry reports routinely present judges as obstacles to stronger enforcement outcomes. Unlike the dedicated police and administrative units at the center of anti-piracy efforts, judges have been much less reliable allies in the effort to scale up the number of convictions and increase the severity of penalties. Industry groups often attribute such resistance to ignorance of IP law or to a failure to grasp the severity and social costs of copyright infringement. Industry requests for the maximum allowable penalties are routinely ignored in favor of fines more commensurate with the (often very limited) ability of offenders to pay. Judges also frequently suspend fines or jail terms after sentencing, signaling that many do not view street-level vending, in particular, as a serious crime.

The training and “sensitization” of prosecutors and judges has, accordingly, been a top priority for stakeholder groups in the past decade. A full spectrum of corporate, government, and international actors fund and organize such efforts, from WIPO, to Microsoft, to the US Department of Justice and the US Patent and Trademark Office. These efforts have, by several accounts, improved coordination and procedures among the various law enforcement units needed to bring cases to court. As one Russian enforcement specialist noted, “We learned how to successfully combat piracy in its traditional form,” referring to the police procedures and legal tools used to combat the optical disc retail trade in the early 2000s. But our interviews suggest that such programs have been less successful with the judiciary. Dismissively low conviction rates and penalties can also be read in part as judicial pushback against local enforcement drives—a view supported by a number of our interviews in South Africa, India, and Brazil.

The context for such resistance is obvious to anyone looking at the day-to-day activity of the criminal courts. In countries where judges routinely confront the consequences of extreme poverty and high rates of violent crime (see figure 1.2), the application of heavy fines and extended prison terms for street vending has proved a difficult sell. Chronic overcrowding of prisons means that judges are often forced to triage lower-level crimes. Efforts to characterize street piracy as commensurate with more dangerous forms of crime routinely fail this commonsense test. Street vendor tactics also play a part in this dynamic. In high-enforcement settings, such as major urban flea markets in Russia, South Africa, and India, vendors have adopted labor practices that shield them from direct exposure to police, including the use of foreign and underage sellers in kiosks and on the street. Judges have often been reluctant to use the full power of criminal sanctions in such cases.
Slow due process and judicial recalcitrance also provide the context for other common IIPA demands, such as the creation of high statutory penalties for infringement that limit judicial discretion, or the creation of special IP courts that can process cases more quickly and decisively, or the application of a variety of extrajudicial forms of punishment, such as the use of pre-trial detention in cases of piracy arrests. In South Africa and parts of India, for example, such detention can last up to a year.

In the absence of an easy path through the courts, however, the main tool of dissuasion is the raid. Thousands of raids are carried out each year in the large middle-income countries, with optical disc vendors and suspected software-infringing businesses topping the list of targets. IIPA reports routinely complain about the lack of follow-through in these operations, which produce a great many confiscations but very few subsequent arrests or prosecutions. But the consistency of these outcomes suggests that this imbalance is a feature, not a defect, of the ramp up of enforcement efforts. Raids scale much more easily than due process, pushing police and industry representatives toward the fastest, most summary procedures at their disposal. The prominence of trivial-sounding disputes over obligations to pay for the storage of confiscated goods becomes clearer in this context. The churn of raids generates a lot of confiscated material. The slow pace of court cases means that the resulting responsibilities for storage are usually long term.
Raids, of course, are their own form of punishment. Although the pirate disc trade has evolved strategies to minimize the disruption from raids, they can be devastating to legitimate businesses. Stock or computers can be impounded for weeks while investigations play out, effectively shutting down businesses for the duration. Because licit software and discs are often hard to distinguish from illicit or unlicensed versions, the range of goods confiscated during raids is often indiscriminate, leading to the loss or impoundment of legitimate property. In Russia, for example, enforcement agents suggested that up to 30% of confiscated discs are legitimate—a number that reflects the broad interpenetration of licit and illicit markets. Software piracy investigations also pose problems due to typically very limited administrative capacities to evaluate installed programs. In these scenarios, the factors that make the court system so costly and slow for enforcement organizations also sharply limit opportunities for redress.

In countries where the costs of raids have fallen on politically connected domestic groups—the local business community or street vendor organizations, for example—enforcement efforts have met with political resistance. When the major Russian enforcement push in 2006–7 exacerbated problems of police shakedowns and commercially motivated harassment, local businesses successfully lobbied the federal government to curtail police authority to conduct raids. The relationships between Mexican street vendor organizations and police are marked by negotiated truces that reflect the integration of these organizations into the political system. Raid-based enforcement is inherently fragile and subject to a political calculus that weighs external pressure from the USTR and multinational groups against internal pressure from domestic business constituencies.

Selective Enforcement

Enforcement is, at all levels, a selective practice that picks and chooses targets from the ocean of infringing activity. This is inevitable in a context in which scarce enforcement resources confront ubiquitous piracy and is a source of many of the structural problems in its application. Enforcement, under these circumstances, has a strongly arbitrary character. At its worst, it is theatrical, politicized, and a tool of competitive advantage among businesses.

The counterpart to raid-based enforcement is the push for spectacular punishments in the handful of cases that do result in convictions. The punishment phase in such cases is often treated as an occasion for public education rather than proportional justice. High statutory penalties for individual acts of infringement in many countries mean that nearly any case can result in crushing penalties. In the United States, Joel Tenenbaum and Jammie Thomas-Rasset were sued by the RIAA for trivially minor acts of file sharing and fined $675,000 and $1.92 million, respectively. In Russia, a school principal, Aleksandr Ponosov, faced five years...
in prison when police discovered infringing software on twelve school computers in 2006. Cases against low-level suppliers or commercial intermediaries increasingly result in criminal charges and are periodically turned into media events by the industry groups themselves. In South Africa, the 2005 case against Johannesburg vendor Marcus Mocke became such an event. Mocke faced eight years in prison after the police seized four hundred pirated DVDs and PlayStation games in his home.

These high-visibility cases demonstrate the willingness of industry groups and at least some prosecutors to make use of the stronger penalties afforded by recent changes in national copyright laws. Ponosov and Mocke faced serious criminal charges for activities that a few years before would have been treated as misdemeanors at most and in all likelihood ignored. The Tenenbaum and Thomas-Rasset cases, for their part, were part of a larger industry experiment in shifting enforcement from commercial intermediaries (for whom such penalties were conceived) to the individual consumers who now represent the lion’s share of infringing activity.

Whether such publicity does more good than harm for the industry enforcement effort is a matter of debate. Most observers view the Ponosov, Tenenbaum, and Thomas-Rasset cases as public-relations disasters for industry—with the former catalyzing a major open-source software movement in Russia and the latter two grounded in a mass-lawsuit strategy that has since been disavowed by all the major industry groups, including the RIAA. Although infringement is routinely found in such cases, the push for disproportionate penalties has made adjudication very difficult. The charges against Ponosov were eventually dismissed. Thomas-Rasset’s penalty was dramatically reduced by the judge (and then raised again in a retrial). Mocke received a fine rather than a prison sentence, which was later suspended. None of these penalties, so far, has been applied. None provide much evidence of achieving the “deterrent” penalty standard required by TRIPS—and if the continued prevalence of piracy is the criterion, then no countries meet the standard.

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Between 2003 and 2008, the RIAA threatened some 27,000 individuals with lawsuits, typically resulting in settlements in the low thousands of dollars. The retreat of the major players from this model has not dissuaded smaller groups from pursuing mass lawsuits. A handful of European law firms have refined the RIAA strategy into a business model based on Internet monitoring and the automated sending of letters demanding payment from alleged infringers (Masnick 2009). In 2010, the US Copyright Group—according to most reports a front for DC law firm Dunlap, Grubb, & Weaver (Anderson 2010)—brought this practice to the United States, filing cases against alleged P2P infringers of individual films—including obscure low-budget films like Far Cry (2008) and Smile Pretty (2009) and more recently, and prominently, Oscar-winner The Hurt Locker (2008). By mid-2010, cases had been filed against some 14,000 “John Does,” with the ISPs under pressure to identify users based on IP (Internet protocol) addresses. Like the RIAA lawsuits, the new suits are designed to produce quick monetary settlements rather than lengthy court cases. In the current round, the US Copyright Group’s go-away price begins at $1,500 and escalates in the event of non-payment. By late 2010, the mass-lawsuit strategy appeared to be in jeopardy due to the slow handling of IP look-up requests by ISPs.
The Irony of Fate 2
Hit Russian movies Day Watch, Night Watch, and The Irony of Fate 2 all benefitted from dedicated enforcement campaigns. A representative of Channel One, the Russian TV broadcaster that controlled the distribution of The Irony of Fate 2, observed:

We simply scared them off. We asked the OBEP [police] to pass the word that our reaction [to pirated copies] will be harsh... Our access to “administrative resources” undoubtedly helped. They would be unlikely to listen to anyone smaller than us. (Vershinin 2008)

“The administrative resources,” in Russian business parlance, means political influence, which can be converted into raids, favorable attention from prosecutors, and even—in this case—preemptive notices from ISPs warning users not to pirate the film.

Predictably, corporate involvement in public enforcement also creates competition for enforcement resources and competitive advantages for companies that can make effective use of them. On one end of this spectrum are the various enforcement business strategies that become available in contexts of widespread illegality. These range from cases of borderline racketeering on the part of business or rights-holder groups, such as the OKO case documented in our Russia chapter, to the mass “John Doe” lawsuits underway in the United States and Europe, to the more common practices of the BSA and other software enforcement groups who self-finance through settlements. In the software arena, it is generally assumed that enforcement falls most heavily on small businesses, which have less sophisticated IT [information technology] management, limited influence with vendors and local authorities, and—above all—less capacity to contest legal threats. As with the suits against individuals, this is not a defect of the model—it is the model.

At the other end of the spectrum are the forms of commercial advantage that flow from influence with government agencies. Perhaps the most overt among these are the dedicated policing campaigns on behalf of particular products or brands. Dedicated enforcement campaigns have become relatively common sights in developing countries as part of the release strategies for major domestic films, with notable examples including The Irony of Fate 2 (2007) in Russia, Tsotsi (2005) in South Africa, Tropa de Elite 2 (2010) in Brazil, and Lagaan (2001) in India. Police mobilization in these situations is generally geared toward the suppression of street piracy during the initial release window for the film, when the majority of profits are made.23

23 The lack of dedicated protection for big Hollywood releases in the United States has been a long-standing source of annoyance for the MPAA, which recently argued that “the planned release of a blockbuster motion picture should be acknowledged as an event that attracts the focused efforts of copyright thieves, who will seek to obtain and distribute pre-release versions and/or to undermine legitimate release by unauthorized distribution through other channels. Enforcement agencies (notably within DOJ and DHS) should plan a similarly focused preventive and responsive strategy. An inter-
Naturally, not all companies enjoy equal access to enforcement resources. As in other contexts, the power to deploy public resources tracks with—and reinforces—influence and size. Among the multinational firms, Microsoft, by nearly all accounts, operates in a league of its own, reflecting its market dominance, coherent developing-market strategy, and nearly bottomless wallet. The company figures centrally in most software enforcement efforts against large institutions, including public agencies, schools, large businesses, and computer-equipment manufacturers, and in the eventual negotiation of volume licensing agreements that bring those institutions into longer term contractual relationships.

Anecdotally, however, our work suggests that domestic companies and artists are often better able to mobilize attention from local authorities—even when representing products embedded in global circuits of investment and distribution, such as most high-end films. For obvious reasons, the politics of copyright enforcement on behalf of domestic producers are more attractive to local and national governments than enforcing Microsoft or Disney licenses. These preferences translate into a variety of formal efforts and informal norms to protect goods with strong local identities, often in ways that capitalize on protectionist sentiment among consumers. De facto deals between pirate vendors and authorities around local content have been common in India, for example, where regional cinema, especially, enjoys preferential treatment from local police. Film and recording artists in both India and South Africa have organized street-agency task force should work with industry to coordinate and make advance plans to try to interdict these most damaging forms of copyright theft” (AFTRA et al. 2010).
level enforcement efforts that focus exclusively on local materials (and sometimes shade into vigilantism). In Russia, 1C, a producer of accounting software and distributor of foreign titles, accounted for 126 of the 207 criminal indictments for software piracy between 2002 and 2008. Microsoft was second with 21.

**How Effective Is Enforcement?**

We see considerable evidence that raid-based enforcement can suppress the more organized forms of optical disc piracy at the retail level. Established stores are vulnerable to raids, and raids are now a regular feature of street life in most high-piracy countries. The result, however, is not the disappearance of the optical disc trade but its deformalization: its reduction to more mobile street vending with less stock, more transient labor practices, and—consequently—greater resilience to police pressure.

The deformalization of piracy is a common thread in our account and arguably the main achievement of enforcement efforts in developing countries. We see no evidence, however, that these efforts have significantly reduced the overall supply of pirated goods—and indeed quite a bit of evidence to the contrary. Optical disc prices have plummeted in most countries, indicating expanded supply and—often—sharper competition in the pirate marketplace. Increasingly, this competition comes from the growth in file sharing and other forms of non-commercial Internet distribution. Pirates, too, must now compete with free. But the underlying story is broader and involves the spread of cheap hardware throughout the media ecosystem, fueling the small-scale, local production of optical discs.

What about online? Lawsuits and injunctions against online intermediaries have become common in the past decade, directed against both non-commercial P2P sites and illicit or under-licensed commercial download sites like the Russian AlloMP3, which sold music at the unusual price of $0.01 per megabyte until its closure in 2008. Despite occasional friction between trading partners, TRIPS-era IP law is well suited to dealing with the latter category of commercial pirates, which generally involves direct, large-scale infringement and clear financial gain—both triggers for criminal prosecution under the TRIPS standard. But commercial websites of this kind have played a very small role in the growth of online copy culture. The current environment is built around an array of intermediary services, including P2P services, file locker sites, streaming services, social networking sites, and search engines. These have been more difficult to target, in part because the nature of their liability is harder to establish. Sites using BitTorrent—currently the dominant P2P protocol—are little more than specialized search engines that overlap the functionality of larger, general-purpose search sites like Google. Like Google, they can point to infringing content, but they neither host it nor directly participate in file exchanges. “Cyberlocker” sites like RapidShare or Megaupload are little more than online storage providers.
Since the Napster era in 1999–2000, rights-holder groups have filed suit against dozens of P2P sites and have generally succeeded in shutting them down. Jurisprudence clarifying the secondary liability of site owners and administrators has been a different story, however, with some countries (such as the United States) developing relatively encompassing standards of contributory infringement, while others (such as the United Kingdom and Germany) maintain more traditional requirements of proof of commercial gain.

Despite the stream of lawsuits and site closures, we see no evidence—and indeed very few claims—that these efforts have had any measurable impact on online piracy. The costs and technical requirements of running a torrent tracker or indexing site are modest, and new sites have quickly emerged to replace old ones. P2P continues to account for a high percentage of total bandwidth utilization in most parts of the world, and infringing files represent, by most accounts, a very high percentage of P2P content (Felton 2010; IFPI 2006). ISP-traffic-monitoring firm ipoque put P2P use in 2009 at roughly 70% of total bandwidth in Eastern Europe, 60% in South America, and slightly lower percentages in northern and southern Europe (Schulze and Mochalski 2009). US rates are generally estimated at 25%–30%, reflecting not so much lower utilization of P2P as higher utilization of streaming video services such as YouTube and Hulu. Rates of use of cyberlocker sites like RapidShare have grown rapidly, leading to pressure on those companies to monitor file uploads and sign deals with content providers. The IFPI, for its part, claims that some forty billion songs were shared on P2P networks in 2008, up from twenty billion in 2006, and that legal downloads represent only 5% of the total circulation of digital music (IFPI 2009).

24 Major BitTorrent site closures due to industry pressure include SuprNova (Slovenia, 2004), Finreactor (Finland, 2004), LokiTorrent (US, 2004), Grokster (US, 2005), EliteTorrents (US, 2005), TorrentSpy (US, 2006), OiNK (UK, 2007), The Pirate Bay (Sweden, 2009), and Mininova (Netherlands, 2009). Civil damages against site administrators have been common in these cases.

25 Principally as a result of MGM v. Grokster (2005), which introduced the concept of “inducement” to infringement as a basis for liability. Although the case fell short of setting a clear standard, it did establish a precedent for finding P2P services liable for secondary infringement.

26 The effects of the roughly 27,000 RIAA lawsuits brought against P2P users between 2003 and 2008 are occasionally debated in this context. The evidence for a deterrent effect on P2P use in the RIAA case is limited to a Pew Internet and American Life Project survey conducted in the wake of the first RIAA announcement. This survey showed a 50% drop in the percentage of users acknowledging use of P2P services, from 29% to 14%. By the time of Pew’s 2005 survey, this number had reverted to 24% and Pew was drawing attention to the importance of other emerging digital distribution channels (Madden and Rainie 2005). For more analysis of the impact of the suits, see EFF (2008).

27 Ipoque relies on small sample sizes, and there is very little wider agreement about these estimates. ISPs rarely provide public data about traffic—either type or volume. Definitions of a “unit” of file sharing vary, and accurate measurement requires intrusive content monitoring. Ipoque’s study is based on a handful of ISPs with which it has agreements. The IFPI, nonetheless, uses the ipoque study to claim that up to 80% of all Internet traffic is P2P (IFPI 2009)—a number found nowhere in the study itself. Cisco Systems put the figure at 55% in 2008 (2009). Zhang (2008) compared some sixty-eight studies and concludes that there is no basis for a reliable estimate.

28 As usual, the provenance of these numbers is unclear. The IFPI indicates that they are compiled from sixteen other unnamed studies.
Internet service providers have long been viewed as the logical choke points for monitoring, blocking, and punishing infringing behavior, and the next generation of enforcement activism focuses on exploiting the contractual links between individuals and ISPs. All the major industry groups support stronger ISP liability for infringing activity on their networks. All support either a direct ISP role in monitoring and enforcing copyright or an indirect role in forwarding industry warnings, leading to eventual cutoff of service. These are the so-called graduated-response, or three-strikes, laws, several of which are coming into effect in 2011.\footnote{Notably in France, the United Kingdom, New Zealand, Korea, and Japan. France started issuing warnings to alleged infringers in late 2010.}

Three-strikes laws face a variety of legal and practical challenges—among them, the household-level organization of most consumer Internet service, which makes it difficult to identify and impossible to isolate individuals behind IP addresses. Collective punishment of families for the acts of individual members will be an inevitable (and legally very controversial) outcome. High courts in Spain, Finland, and France, for example, have declared Internet access a fundamental right, reflecting its growing role in social, cultural, and economic life. A 2010 BBC survey in twenty-six countries found that 79% of respondents shared this view. US law has not yet characterized access in these terms, but it is clearly the direction signaled by the FCC (Federal Communications Commission) in its recent National Broadband Plan.

Over the longer term, stronger consumer-directed enforcement is certain to produce an arms race between encrypted, anonymized services and industry detection techniques. Although the industry currently presents graduated response as an effective response to consumer piracy, it is far from clear that it will prove legally or politically viable, or do more than shift users to other forms of distribution. As recent MPAA and RIAA comments on enforcement submitted to the US government make clear, however, three-strikes is not the end of the digital enforcement fight but the beginning. The next steps down the path include preemptive content-filtering by ISPs, the inclusion of home-based monitoring software in ISP contracts, and the amendment of customs forms “to require the disclosure of pirate or counterfeit items being brought into the United States” (AFTRA et al. 2010). For the average 14- to 24-year-old with over eight hundred pirated songs in his or her collection in 2008 (Bahanovich and Collopy 2009), this would represent a serious dilemma.
Does Education Work?

Nearly all formal plans for IP protection, from the US Chamber of Commerce’s “Campaign to Protect America” to the Brazilian government’s “National Plan on Combating Piracy” to WIPO’s Development Agenda stress that “repressive measures” are not enough—that enforcement also requires building a stronger “culture of intellectual property” through education and public awareness campaigns. Education efforts are accordingly widespread, ranging from anti-piracy curricula in public schools, to print and video campaigns, to technical seminars designed to “sensitize” judges and law enforcement officers to the severity of IP crime. Efforts directed at children and students are quite common. Of the 202 campaigns listed in a WIPO enforcement database since 2000, 52 target “kids and teenagers.” These include the BSA’s “Define the Line” campaign and the ESA’s “Join the ©Team” in the United States, the “Children Against Piracy” and “Change Starts with an Idea . . . It Can be Yours!” campaigns in Mexico, and the “Projeto Escola Legal,” a Brazilian school-based curriculum examined in detail in chapter 5. These efforts have also produced a subgenre of comics, ranging from the MPAA’s “Escape from Terror Byte City” (2009) to the short-lived Canadian hero, “Captain Copyright” (2006).

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schools puts it: “It is no exaggeration to say that by buying a pirated product, an individual is worsening his own chances of getting a job, or even provoking the unemployment of a relative or friend” (Amcham-Brasil 2010). In a widely circulated Brazilian video spot, criminals address the pirate DVD consumer: “Thank you ma’am, for helping us to buy weapons!”

The effort to shape public discourse around piracy extends to the management of the print and broadcast news. Several of our country studies document the extent to which copyright industry messaging dominates print and broadcast coverage of piracy. Our South Africa team documented some eight hundred print and broadcast stories over a four-year period in a country with just three major media markets. A similar examination in Brazil collected roughly five hundred stories over a three-year period. The vast majority of this coverage reproduces a few standard templates: the raid or big arrest, the new piracy report, the aggrieved artist. Many of them report from industry press events or simply quote verbatim from industry press releases.

Despite the ubiquity of media piracy, contrasting or critical perspectives in this coverage are rare. Especially when the subject is enforcement action or research, there are few “other points of view” to feed the journalistic reflex for balance. A variety of factors contribute to this discursive dominance, from the professional press management strategies practiced by industry groups, to overstretched journalists in need of easily packaged stories, to the lack of civil-society engagement with enforcement.31 This homogeneity stands in sharp contrast to the many online venues that harbor a wider range of positions on piracy and enforcement, and that collectively offer a much closer approximation, in our view, of the actual diversity of consumer attitudes.

What do these efforts to shape public discourse achieve? If dissuading consumers is the primary goal, the answer appears to be: very little. Our inquiries (mixing survey, focus group, and interview methods) found a remarkably consistent cluster of attitudes on piracy: (1) that it is often regarded with ambivalence by consumers, (2) that pragmatic issues of price and availability nearly always win out over moral considerations, and (3) that consumers know what they are buying. The classic scene of developing-world piracy—the kiosk or street vendor selling DVDs—produces very little misunderstanding on the part of consumers about the nature of the transaction. Consumers weigh tradeoffs between price and expectations of quality, but within a context of explicit black-market negotiation in which notions of fraud or deception—often borrowed from anti-counterfeiting discourse—generally don’t apply. The price gap between licit and pirated media provides a clear signal of the origins of goods.

The legibility of this scene for consumers, in our view, provides a benchmark for other scenes of copying and infringement that are more commonly the subjects of uncertain or confused legal status—especially around practices of ripping, sharing, uploading, and downloading digital material. Clarifying for students that the file sharing of copyrighted music is piracy

31 We heard ample support for all three views from print journalists. A plausible—though here undocumented—fourth factor would be the control of the print and broadcast media by many of the same media conglomerates involved in enforcement advocacy.
seems entirely possible, for example, but we see no evidence that this knowledge will have any impact on practices. We see no real “education” of the consumer to be done.

This finding is consistent, we believe, with the preponderance of consumer-opinion surveys conducted in this area, including those by Pew in the United States, the BPI (British Recorded Music Industry) in the United Kingdom, PROFECO (the Attorney General for Consumer Affairs) in Mexico, IBOPE (Brazilian Institute of Public Opinion and Statistics) and Ipsos in Brazil, and many others. The most comprehensive comparative analysis of these issues to date is a 2009 StrategyOne study commissioned by the International Chamber of Commerce. StrategyOne examined some 176 consumer surveys and conducted new ones in Russia, India, Mexico, South Korea, and the United Kingdom. Like nearly all other surveys, StrategyOne’s work showed high levels of acceptance of physical and digital piracy, with digital media practices among young adults always at the top of the distribution. The group concluded that “hear no evil, see no evil, speak no evil’ has become the norm” (BASCAP/StrategyOne 2009). At this point, such findings should come as no surprise. In the contexts in which we have worked, we can say with some confidence that efforts to stigmatize piracy have failed.

There is little room to maneuver here, we would argue, because consumer attitudes are, for the most part, not unformed—not awaiting definition by a clear anti-piracy message. On the contrary, we consistently found strong views. The consumer surplus generated by piracy is not just popular but also widely understood in economic-justice terms, mapped to perceptions of greedy US and multinational corporations and to the broader structural inequalities of globalization in which most developing-world consumers live. Enforcement efforts, in turn, are widely associated with US pressure on national governments and are met with indifference or hostility by large majorities of respondents. The reluctance of many governments to adopt stronger enforcement measures needs to be understood in light of these potentially high domestic political costs.

Although education is generally presented as a long-term investment in counteracting these attitudes, the lack of evidence for their effectiveness is striking. There have, after all, been a lot of campaigns in the past decade—StrategyOne counted some 333 in developed countries alone as of 2009. It would be reasonable to expect some benchmarks and tentative conclusions. But such follow-up appears to be almost universally avoided. We are unaware of any campaigns that have included subsequent evaluation. This also appears to be the conclusion reached by StrategyOne in its examination of 202 separate campaigns.

32 The BASCAP/StrategyOne study is an important but conflicted contribution to the literature. Consistently, it portrays the near-total failure of industry messaging on piracy in developing countries. It finds that the main drivers of piracy are price and availability and links these factors to widespread support for media piracy and general resentment of anti-piracy efforts, especially in developing countries. And it disaggregates findings for medicines and media products—in notable contrast to the usual industry practice of conflating health and safety risks associated with some categories of counterfeit goods to essentially harmless practices of media consumption. Yet, StrategyOne appears compelled to find that these structural factors are actually communication problems and that education efforts can (or more precisely, must) work given better messaging.
The proliferation of campaigns and the avoidance of bad news, in this context, strongly suggest the presence of other motives. Much of the continuing investment in education and public awareness, in our view, is attributable to strongly felt but ultimately wishful thinking about the future, as when StrategyOne describes the failure of education efforts, despite the evidence, as simply “unacceptable for us as individuals, for the companies and industries we work in and for society as a whole” (BASCAP/StrategyOne 2010). In other contexts, it is clear that educational initiatives provide useful political cover for governments publicly committed to enforcement but wary of further “repressive measures” and for industry groups looking to soften their agendas as they turn toward more direct ways of penalizing consumer infringement.

As we discuss at some length in the Brazil chapter of this report, educational campaigns can provide a path of least resistance between these contending interests and result in commitments to the most naive versions of these programs by public officials. Such compromises are why 22,000 Brazilian school children are now part of the “Projeto Escola Legal”—the flagship educational project of Brazil’s National Plan to Combat Piracy—which, in a typical passage, advises teachers to address student concerns about affordable access to media with this logic: “The production of movies, music, books, etc., is vast, and therefore, if we cannot buy a ticket to watch a movie, we can’t say that we do not have access to culture, but only to that specific movie, in that specific place, and that specific moment.” We think it exceedingly unlikely that a culture of intellectual property will be built on such sophism and disconnection from consumer realities.

What Is Consumption?

Traditionally, the high costs of media production and distribution dictated relatively sharp distinctions between producers, distributors, and consumers of media. The consumer sat at the end of a commodity chain that delivered finished goods and structured experiences—records played on stereos, movies shown in the theatres, and so on. Consumers’ perspectives were valuable and eagerly solicited, but the opportunities for creative engagement with or appropriation of the work were generally marginal. This model has, of course, come under pressure as falling costs of production and distribution democratize those core functions of the media economy and as new technologies privilege forms of commentary, appropriation, and reuse. Such practices have arguably become the main tropes for thinking about digital media in general.

Our work generally validates and expands on this perspective. We see these shifts clearly in the emergence of new production and distribution chains at the very low end of media markets—almost always illicit at the outset but later evolving into mixed markets that include

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33 As this report was going to press, representatives of Brazil’s National Council on Combating Piracy indicated to the author that “Projeto Escola Legal” had recently been rejected by the government. There has been, as yet, no public announcement of this change in policy.
new, legalized competition. And we see it in a range of creative appropriations of goods that test the boundary between authorized and unauthorized use—often triggering charges of piracy.

With regard to recorded media, however, our work highlights a more specific transformation in the organization of consumption: the decline of the collector and of the intentional, managed acquisition that traditionally defined his or her relationship to media. In our view, this notional consumer still organizes a large part of the cultural field and a significant share of the business models and supply chains for audiovisual media. But it is also clearly a shrinking cultural role, defined by income effects and legacy cultural practices.

The collector, our work suggests, is giving ground at both the high end and low end of the income spectrum. Among privileged, technically literate consumers, the issue is one of manageable scale: the growing size of personal media libraries is disconnecting recorded media from traditional notions of the collection—and even from strong assumptions of intentionality in its acquisition. A 2009 survey of 1,800 young people in the United Kingdom found that the average digital library contained 8,000 songs, with 1,800 on the average iPod (Bahanovich and Collopy 2009). Most of these songs—up to two-thirds in another recent study—have never been listened to (Lamer 2006).

Such numbers describe music and, increasingly, video communities that share content by the tens or hundreds of gigabytes—sizes that diminish consumers’ abilities to organize or even grasp the full extent of their collections. Community-based libraries, such as those constituted through invitation-only P2P sites, carry this reformulation of norms further, structured around still more diffuse principles of ownership and organization. On such scales, many of the classic functions of collecting become impersonal, no longer individually managed or manageable. A related effect is that personal ownership becomes harder to specify and measure: consumer surveys are poorly adapted to mapping terrain where respondent knowledge is unreliable. Studies based on specific devices or media services (such as the handful of studies that use iTunes data) may only capture a portion of the media resources that consumers engage with. Increasingly, we live in an ocean of media that has no clear provenance or boundaries.

Several of our studies document the tension between the collecting model, which still has practical and affective connections to physical discs, and the “native” digital model, which generally does not. Inevitably this tension maps onto income effects, broadband availability, and age and consequently bears on relatively small portions of the populations of middle- and low-income countries. Original goods continue to play a variety of high-status roles in these contexts, as signals of wealth or—as our Russia study suggests—as the polite form for gifts.\footnote{See also Wang (2003) on these distinctions.}

But even in the short span of years covered in this study, the transformation of these practices is visible and striking. The relevant metric in middle-income countries is not the slow growth in average incomes but the fast decline in the price of technology.
The second and, in many countries, more significant consumer shift is the growth of mass markets for recorded media among the very poor and—in many cases—mass production of recorded media by the very poor. The contours of this revolution can be traced back to the profoundly democratizing and piracy-enabling recorded media technologies of the 1980s—the audio cassette and the cassette player (Manuel 1993). The much larger current wave of digital media production is built on the proliferation of a cheap VCD and DVD infrastructure in the past decade, including multiformat players, computers, burners, and discs—both fueling and fueled by the availability of cheap pirated content. Consumer practices at this level are organized differently, with less attachment to CDs or DVDs as elements of a private collection than as goods shared within extended families and communities. Collective consumption—viewing and listening—is more common in this context, reflecting the lower numbers of TVs, computers, and DVD players in poor households.

Neither the high-income nor low-income version of this shift has much currency in enforcement debates, which continue to be shaped, we would argue, by a nostalgic view of the consumer as collector—of people making deliberate choices to purchase, or pirate, specific goods for personal use. And despite the evidence of the collector’s diminishing hold on digital cultural practices, we do not expect this to change: real or not, the collector is an important construct that anchors personal responsibility—and liability—in the copyright economy. As enforcement efforts shift from commercial intermediaries toward consumers, such anachronism takes on greater, not lesser, importance.

**Does Crime Pay?**

Claims of connections between media piracy and narcotrafficking, arms smuggling, and other “hard” forms of organized crime have been part of enforcement discourse since the late 1990s, when the IFPI began to raise concerns about the transborder smuggling of pirated CDs (IFPI 2001). Claimed connections between piracy and terrorism are a more recent addition. In 2003, the secretary general of Interpol, Ronald Noble, “sound[ed] the alarm that Intellectual Property Crime is becoming the preferred method of funding for a number of terrorist groups” (Noble 2003). In 2008, the US attorney general, Michael Mukasey, declared that “criminal syndicates, and in some cases even terrorist groups, view IP crime as a lucrative business, and see it as a low-risk way to fund other activities” (Mukasey 2008). In 2009, the RAND Corporation published what is to date the most exhaustive statement on this subject: a 150-page, MPAA-funded report on film piracy’s links to organized crime and terrorism (Treverton et al. 2009).

Commercial-scale piracy is illegal, and its clandestine production and supply chains invariably require organization. It meets, in this respect, a minimal definition of organized crime. Pirated CD and DVD vending, moreover, is often concentrated in poor neighborhoods and informal markets where other types of illegal activity are common. Such contexts create points of intersection between the pirate economy and wider illegal and quasi-legal arrangements of the informal economy. It would be remarkable if they did not. But we found no evidence of
systematic links between media piracy and more serious forms of organized crime, much less terrorism, in any of our country studies. What explains this result?

Invariably, the rationale offered for criminal-syndicate and terrorist involvement is that piracy is a highly profitable business. The RAND report, for example, states (without explanation) that “DVD piracy . . . has a higher profit margin than narcotics” (Treverton et al. 2009:xii)—an implausible claim that has circulated in industry literature since at least 2004.35 We think the record is clear that piracy was a highly profitable business through the early 2000s, when optical disc production facilities were expensive, industrial in scale, and relatively scarce. The concentration of production capacity in a few countries created an international pirate economy in which some countries emerged as exporters of optical discs (for example, Malaysia, Bulgaria, and the Ukraine), while others became primarily importers or transshipment points. International distribution, in these circumstances, involved the smuggling of physical goods and consequently mirrored—and sometimes shared—the distribution infrastructure for other counterfeit and contraband products. In our India and South Africa studies, in particular, we see evidence that this structure of piracy persists in regional trade networks connecting South Asia, the Middle East, South Africa, and parts of East Asia. But it is also clear that

Thugs and Criminals

"With rare exceptions, the people procuring, producing, and distributing this pirated material are affiliated with large and dangerous international criminal syndicates." Film piracy is not being operated by "mom-and-pop operations." . . . "It is being done by business-minded thugs who fund this activity through money raised from other illicit activity such as drug dealing, gun running, and human trafficking [utilizing the same distribution networks], and who, in turn, fund these other activities through the money they raise through piracy." Consequently, "the odds are high that every dollar, pound, peso, euro or rupee spent on them is put into the pockets of bad people who will spend it in a way which is not consonant with our safety and security." Most alarmingly, these groups "have no qualms whatsoever about resorting to violence or bribery to conduct their operations, and they play for keeps."

—John Malcolm, senior vice-president and director of worldwide anti-piracy operations for the MPAA (quoted in McIlwain 2005)

35 The initial version of this claim appears to come from a 2001 story in the French newsweekly Marianne, which stated that a kilogram of pirated CDs was worth more than a kilogram of hashish. The claim was picked up by Interpol in its 2003 report to the US Congress on “The Links Between Intellectual Property Crime and Terrorist Financing” and from there began a long life of circular citation in industry reports. This claim has been challenged before (Piracy Is Not A Crime.com 2006), but to update and reiterate the point: according to US customs authorities, a kilogram of hashish in New York sells for around $30,000. A kilogram of pirated DVDs (amounting to 60–65 discs averaging 16 grams each) has a street value of about $300 in New York, at the going rate of $5 per DVD. The IIPA repeats a version of this claim in its 2010 submission to the USTR.
such networks are marginal to the larger pirate economy and rapidly waning—driven into unprofitability by expanded local production and free digital distribution. We see no evidence that piracy, outside a few niche markets, is still a high-margin business.

These trends have dominated pirate production since the early 2000s. Production costs and profit margins on optical discs have plummeted, leading to a collapse in prices. In 2001, quality DVDs typically cost five dollars or more on the street. In 2010, they are under a dollar at retail in many parts of the world. Burners and blank discs are now commodity items, and their greater availability has led to a massive expansion of local production, the displacement of smuggling, and—in many countries—a reorganization of production around small-scale, often family-based, cottage industry. Pressure on profit margins has increased, too, due to the rise of the massive non-commercial sphere of copying and distribution on the Internet, which has all but eliminated commercial optical disc piracy in high-income countries and appears poised to do so further down the GDP ladder. Increasingly, commercial pirates face the same dilemma as the legal industry: how to compete with free.

This decline in costs is, in our view, the primary factor shaping pirate markets and a growing disincentive for traditional organized-criminal involvement. Yet, to the best of our knowledge, no industry or law enforcement statements about alleged criminal connections have thought this worth mention. As in other contexts, the issue is avoided by conflating piracy and counterfeiting under the rubric of what Interpol calls “IP crimes.” IP crimes include the counterfeiting of cigarettes, medicines, machine parts, and a variety of other industrial goods. Nearly all are high-margin goods distributed through transnational smuggling networks—indeed they are smuggled because they are high margin. Smuggling, in turn, creates opportunities for criminal groups to organize or tax the transit of these goods. Terrorist connections are possible in such contexts, and there is evidence that tobacco smuggling in particular—incentivized by high European and US taxes on cigarettes and abetted by major tobacco companies—is a significant revenue source for the Taliban, the Columbian FARC, and the PKK (Willson 2009).

Arguing that piracy is integral to such networks means ignoring the dramatic changes in the technology and organizational structure of the pirate market over the past decade. By necessity, evidentiary standards become very loose. Decades-old stories are recycled as proof of contemporary terrorist connections, anecdotes stand in as evidence of wider systemic linkages, and the threshold for what counts as organized crime is set very low. The RAND study, which reprises and builds on earlier IFPI and Interpol reporting, is constructed almost entirely around such practices. Prominent stories about IRA involvement in movie piracy and Hezbollah involvement in DVD and software piracy date, respectively, to the 1980s and 1990s. Street vendor networks in Mexico City—a subject we treat at length in the Mexico chapter—are mischaracterized as criminal gangs connected with the drug trade. Piracy in Russia is attributed to criminal mafias rather than to the chronically porous boundary between licit and illicit enterprise. The Pakistani criminal gang D-Company, far from “forging a clear pirate monopoly” in Bollywood, in RAND’s words, plays a small and diminishing part in Indian DVD piracy—its smuggling networks dwarfed by local production.
The US record isn’t more convincing in this regard. Jeffrey McIlwain examined the Department of Justice’s IP-related prosecutions between 2000 and 2004 and found that only 49 out of the 105 cases alleged that the defendant operated within larger, organized networks. Nearly all of these were “warez” distribution groups for pirated software—hacker communities that are explicitly and often fiercely non-commercial in orientation. McIlwain found “no overt references to professional organized crime groups” in any of the DOJ’s criminal charges (McIlwain 2005:27). If organized crime is a serious problem in these contexts, it should not be difficult to produce a stronger evidentiary record.

Disaggregating Industry Exposure

Piracy is generally presented as a uniform threat to the copyright industries, but in practice these industries have widely varying exposure to piracy, reflecting differences in how music, film, and software are consumed and how different business strategies and consumer expectations have shaped markets for those goods. The core copyright industries are also internally diverse, with a variety of revenue flows and business models that contribute to the bottom line.

We see considerable evidence that the digital transition is changing the mix of business models in the music, film, and software businesses—and undermining some very profitable ones, such as the markets for CDs and DVDs. But we see no evidence that the industries overall have diminished capacities to innovate or commercialize new work. By most measures this has been a very prosperous decade for the US copyright industries—up to and, in some sectors, including the current economic crisis. All of the US copyright industries—film, business software, entertainment software, book publishing, and even music (including live performance)—grew in total revenues through 2008.

Insofar as the quantity of new products is an indicator of the health of a cultural sector, the first decade of the new millennium was a veritable golden age in the United States. The number of new albums released more than doubled in the period, from 35,516 in 2000 to 79,695 in 2007 (Oberholzer-Gee and Strumpf 2009). The number of Hollywood films released ranged between 370 and 460 in the 1990s and between 450 and 928 in the 2000s, with the peak year in 2006 and some 677 produced in 2009 (MPAA 2006, 2010). Software industry growth has been dramatic, averaging 20%–30% annually until 2009. The video-game sector averaged nearly 17% growth between 2005 and 2008, with growth rates in 2007 and 2008 of 28% and 23% (Siweck 2010). According to the IIPA, the core copyright industries in the United States averaged 5.8% growth between 2003 and 2007—well above the roughly 3% annual US

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36 We use these numbers with reservations. The European Audiovisual Observatory relies on MPAA numbers, and the MPAA appears to have revised its counting method in 2010, leading to different (and generally higher) numbers of films reported between 2005-2009 and a somewhat sharper decline in recent production (MPAA 2010). How this impacts numbers before 2005 is unclear.

37 The economic crisis produced a 10% contraction in the market in 2009.
growth rate in the period (Siwek 2009). According to the World Association of Newspapers and News Publishers, total media and entertainment spending posted an annual growth rate of 5.3% in the United States between 2002 and 2008 and 6.4% globally (WAN-IFRA 2008). Losses to piracy need to be placed in this context of overall industry growth—and in some cases remarkably rapid growth.

Our work reinforces the view, however, that business models built around the sale of high-priced recorded media—CDs, DVDs, and stand-alone software products—are becoming less viable. This is especially true in environments where consumer expectations are oriented around ownership, rather than licensing or rental, and above all in countries where price/income ratios remain high. Piracy is a major source of pressure on recorded media markets, but by no means the only one. In particular, it is increasingly difficult to separate the impact of piracy on CD or DVD markets from the impact of low-cost legal competitors that have emerged in the past several years—streaming music and video services like Spotify in the United Kingdom and Hulu in the United States, very low-priced video rental services like redbox in the United States or BigFlix in India, and “debundle” products like digital music singles that are supplanting the higher-cost album as the main unit of sale. Piracy has undoubtedly been a catalyst for the emergence of these low-cost models, insofar as it resets consumer expectations around cheaper, on-demand availability. But increasingly, the pressure on the high-end market comes from legal innovators at the low end.

**Music**

Our study adds relatively little to the volumes that have been written about the digital transition in the music industry—often held up as the “canary in the coal mine” for other media markets. We share the increasingly consensual view that the situation is better understood as a crisis of the high-margin CD business—and of the “big four” record labels (EMI, Sony Music Entertainment, the Universal Music Group, and Warner Music Group), which have relied nearly exclusively on it for their profits—rather than a crisis of the music business in general. The decline in this side of the business has, without doubt, been precipitous (see figure 1.3). According to the IFPI, global recorded music sales dropped from $33.7 billion in 2001 to $18.4 billion in 2008—almost entirely attributable to the decline of CD sales. In the United States, CD sales fell from $7 billion in 2004 to $3.1 billion in 2008—a situation somewhat mitigated by the rise in digital sales from zero to $1.8 billion in that period. Recorded music sales in most other countries have been in similar free fall. Between 2004 and 2008, Brazilian recorded music sales shrank from $399 million to $179 million; Russian sales dropped from $352 million to $221 million; sales in Mexico from $237 million to $145 million. In South Africa, considered a bright spot in international sales, sales grew through 2007—peaking at $129 million before falling to $119 million in 2008.
Industry representatives tend to attribute this decline to piracy—and in high-income countries to the boom in Internet piracy inaugurated by the launch of Napster in 1999. Most recent histories of the music business, in contrast, cite a broader range of factors that pushed the CD market into decline in the early 2000s, including the maturation of the market in the late 1990s as customers replaced their LP collections, the proliferation of other media goods and services (DVDs, video games, cell-phone services) competing for the same pool of disposable income, and the debundling of the album format as customers cherry-picked lower-priced digital singles, to cite only a few. As we have discussed, the contribution of piracy to this decline is hard to specify and is a matter of considerable disagreement in the research literature.

38 Cary Sherman, RIAA president, said in 2003, “The root cause for this drastic decline in record sales is the astronomical rate of music piracy on the Internet.” IFPI CEO Jay Berman similarly claimed, in 2001, that “the industry’s problems reflect no fall in the popularity of recorded music; rather, they reflect the fact that the commercial value of music is being widely devalued by mass copying and piracy” (Hu 2002).

39 CD sales were a massive growth engine for the recording industry in the United States in the 1990s, rising from $3.4 billion in 1990 to a peak of $13.2 billion in 2000. Much of this growth is attributed to “replacement costs” as customers repurchased their LP collections in CD format.
Nonetheless, total expenditures on music in the period—including concerts and digital formats—have been stable or slightly increasing. The CD’s sharp decline in the United States has been offset by the growth in digital sales and concert revenues: the latter more than tripled, from $1.3 billion in 1998 to $4.2 billion in 2008. Such numbers point to a shift from a high-margin industry dominated by CD sales, the album format, and the big four labels to a lower-margin business with more emphasis on performance and related rights.\footnote{They do not, in our view, point to an existential threat to the music business, much less to music culture.} They do not, in our view, point to an existential threat to the music business, much less to music culture.

Developing countries share in these trends, including the fall in CD sales and the growth of the live-performance market. But the structure of the global marketplace also creates important points of divergence. In broad terms, this structure is relatively simple, marked by (1) the near complete dominance of the big four labels in most developing markets—some 84\% of the market in Brazil, 82\% in Mexico, and 78\% in South Africa, for example;\footnote{Compared to a 70\%–75\% share globally.} (2) the concentration of 80\%–85\% of revenues in the United States, Western Europe, Japan, Australia, and Canada; and (3) the absence, in most developing countries, of strong domestic competitors capable of building viable alternative distribution strategies, such as Apple and other digital distributors are doing in the United States.

In practice, these factors reinforce the high-price, very-small-market dynamic visible in most developing countries. They create a context in which the big four labels have every incentive to protect high-income markets but little incentive to change their pricing strategies in low- and middle-income markets. Compared to high-value markets like the United States, the United Kingdom, and Japan, the emerging markets are simply inconsequential. Price cuts to expand the market in Brazil, South Africa, or Mexico would have a very limited upside in this context and a potentially serious downside if they began to undermine pricing conventions in the high-income markets. The majors’ evaluation of this tradeoff is clear: none have significantly lowered prices in emerging markets.

The dominance of the majors means, too, that there are fewer local actors capable of developing business models at price points below the retail CD market. Competitors in the digital market, who have driven the shift in business models in the high-income countries, are still nascent in most developing countries: legal services have emerged only in the last few years and major players like the iTunes Store are generally absent from the music and video market.\footnote{The iTunes App Store is widely available due to Apple’s global marketing of the iPhone, but music and video sales are much less widely supported. An iTunes Music Store launched in India in 2008 and Mexico in late 2009, for example, but is unavailable in many other countries, including South Africa, Russia, and Brazil.} Consequently, the market is still “stuck” on the CD model in ways that have widened the gap

\footnote{There is a dearth of empirical work on the impact of this shift in revenue streams. It will undoubtedly be bad for some artists, but whether it is good or bad in general is not something we can clarify here. Proportionally, a much larger percentage of concert revenues than of CD sales remain in the hands of artists, reflecting more direct artist control over concert deals.}
on price, convenience, and variety with the pirate market. The continued decline of CD sales and the massive growth of piracy are predictable consumer-driven results. Recent IIPA reports cite rates of music piracy in excess of 90% in China, India, Mexico, and Brazil. Less and less of this traffic takes place on the street, as physical piracy shifts toward the narrower stock and higher margins of DVDs.

Most of our data points to the continued erosion of this model. Pressure on the majors is coming from all sides of the business. Diminished costs of production and the growing ease of digital distribution have produced a wave of new entrants into the low end of music markets. Digital distribution is just beginning to break the majors’ lock on access to international markets. Telecom providers are beginning to push on the local pricing conventions for mobile-music sales.

Our country studies explore this shift from the perspective of vendors, consumers, and industry actors and, overall, demonstrate the advantages of local industry control in developing markets. In countries where local recording labels and local repertoire are especially powerful—among our reports, in Russia and India—the reconfiguration of music business models is a given. Indian companies like T-Series compete fiercely with the pirates on price and have hugely expanded the market for recorded music; Russian music labels, which never had a stable CD market to rely upon, have increasingly consigned the CD to a promotional role for live performance and set prices well below those of licensed international albums.

The limit case, in our studies, is Bolivia, where the impasse of high prices, low incomes, and ubiquitous piracy shuttered all but one local label in the early 2000s and drove the majors out altogether. The tiny Bolivian legal market, worth only $20 million at its peak, was destroyed. But Bolivian music culture was not. Below the depleted high-end commercial landscape, our work documents the emergence of a generation of new producers, artists, and commercial practices—much of it rooted in indigenous communities and distributed through informal markets. The resulting mix of pirated goods, promotional CDs, and low-priced recordings has created, for the first time in that country, a popular market for recorded music. For the vast majority of Bolivians, recorded music has never been so prolific or affordable.

The resulting global picture is complex and unresolved. The significance of the cheap CD model pioneered by T-Series and other vendors in India is not that it eliminated or even marginalized piracy—it did not. The point is that competition and technological innovation in the Indian music business drove prices to a much lower level, expanded access beyond the commercial elite, and proved viable as a local business model. In other countries, the dominant international labels have not followed suit: the Bolivian case illustrates not so much the failure of a market as the lack of interest, on the part of the incumbents, in reinventing it.

In developing countries where the majors dominate, the legal CD market was never a mass market, and at this stage, never will be. The format is headed for obsolescence, and with it the high-price/small-market dynamic it anchored. The current pirate market, in contrast, is a mass market, but it remains to be seen how many legal publishers can—or will—offer competitive pricing and availability. In a period of both unprecedented access to music and
unprecedented levels of production of new music, this is a subject of intense interest but not, in our view, a cause for general alarm.

**Movies and TV Shows**

Claims about movie piracy drive much of the industry enforcement agenda. In 2009, the MPAA Chairman Dan Glickman called piracy a “dagger in the heart” of the movie industry. When Senator Patrick Leahy, fresh from his cameo in 2008’s *The Dark Knight*, unveiled the 2008 PRO-IP Act, he called piracy a threat to “all of the value” created by the film. And in many respects he picked a good example. *The Dark Knight* appeared on BitTorrent sites well before its theatrical release and became the most pirated film of 2008. It also broke all box office records and earned over $1 billion worldwide.

The message from Hollywood consequently has a schizophrenic quality: the movie business is in crisis; the movie business is thriving. Since 2002, the US movie industry has been a $9–10.5 billion business in domestic box office revenues, with successive record-setting years in 2007, 2008, and 2009. International distribution brought in some $16.6 billion in 2007, $18.1 billion in 2008, and $19.3 billion in 2009 (MPAA 2009). DVD sales are a separate, massive revenue stream: global sales peaked at $23.4 billion in 2007 before dropping to $22.4 billion in 2008 and falling further in 2009. Licensing of movie-related merchandise is a third revenue stream, estimated at roughly $16 billion per year (Oberholzer-Gee and Strumpf 2009). This success is not limited to Hollywood. The Indian movie industry—second in global revenues—has also boomed in recent years and registered 13% growth in 2008, with up to $2.2 billion in box office revenues (see figure 1.4). Revenues in 2009 dropped slightly to $1.86 billion (Kohi-Khandekar 2010).

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43 The cross-marketing of key movie “properties” makes revenue figures hard to disaggregate: movies, games, books, and other products are increasingly part of an integrated media mix that generates revenues—and audiences—across sectors. According to Disney, licensed merchandise alone generated $30 billion in 2008, including $3.7 billion from the 2006 film Cars and $2.7 billion from Hannah Montana tie-ins (Walt Disney Company 2010).
As bandwidth and computing power catch up to the higher demands of video piracy, industry representatives fear that the studios will follow in the footsteps of the record companies. We think this is likely, but insist on carrying the analogy through. The high-priced DVD market is clearly vulnerable to piracy and to the growing range of low-cost legal alternatives, such as streaming services like Netflix and Hulu and automated rental kiosks like redbox in the United States. The displacement effects between these different channels of distribution and consumption will be increasingly difficult to isolate. But theatrical revenues, like live performance in the music business, appear remarkably solid even in a period of sharp cutbacks in consumer spending. Merchandising, cross-media franchising, and other sources of income are also largely independent of these changes in the distribution channel. Unlike the major music labels, the studios control these other revenue streams, leaving them in a far better position to maintain their core business model. If the DVD market collapses as quickly as the CD market, Americans may one day face a $50–60 billion domestic movie industry rather than a $60–70 billion one.

Hit movies nearly always top the list of most-pirated media (table 1.2)—though torrents can also fuel viral hits like the 2008 British gangster film *RocknRolla*, which received minimal distribution in the United States. But overall, American TV series dominate the P2P channel.
Table 1.2 Top Downloads for 2009 by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Downloads</th>
<th>Worldwide Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Movies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Star Trek</td>
<td>10,960,000</td>
<td>$385,459,000</td>
</tr>
<tr>
<td>Transformers: Revenge of the Fallen</td>
<td>10,600,000</td>
<td>$834,969,000</td>
</tr>
<tr>
<td>RocknRolla</td>
<td>9,430,000</td>
<td>$25,728,000</td>
</tr>
<tr>
<td>The Hangover</td>
<td>9,180,000</td>
<td>$459,422,000</td>
</tr>
<tr>
<td>Twilight</td>
<td>8,720,000</td>
<td>$384,997,000</td>
</tr>
<tr>
<td><strong>Television Series (top single episode)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroes</td>
<td>6,580,000</td>
<td>5,900,000</td>
</tr>
<tr>
<td>Lost</td>
<td>6,310,000</td>
<td>11,050,000</td>
</tr>
<tr>
<td>Prison Break</td>
<td>3,450,000</td>
<td>5,300,000</td>
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<tr>
<td>Dexter</td>
<td>2,780,000</td>
<td>2,300,000</td>
</tr>
<tr>
<td>House</td>
<td>2,590,000</td>
<td>15,600,000</td>
</tr>
<tr>
<td><strong>PC Games (sales figures generally unavailable)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call of Duty: Modern Warfare 2</td>
<td>4,100,000</td>
<td></td>
</tr>
<tr>
<td>The Sims 3</td>
<td>3,200,000</td>
<td></td>
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<tr>
<td>Prototype</td>
<td>2,350,000</td>
<td></td>
</tr>
<tr>
<td>Need for Speed: Shift</td>
<td>2,100,000</td>
<td></td>
</tr>
<tr>
<td><strong>Console Games</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Super Mario Bros. (Wii)</td>
<td>1,150,000</td>
<td></td>
</tr>
<tr>
<td>Call of Duty: Modern Warfare 2 (XBox 360)</td>
<td>970,000</td>
<td></td>
</tr>
<tr>
<td>Punch-Out!! (Wii)</td>
<td>950,000</td>
<td></td>
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<tr>
<td>Wii Sports Resort (Wii)</td>
<td>920,000</td>
<td></td>
</tr>
<tr>
<td>Street Fighter IV (XBox 360)</td>
<td>840,000</td>
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</tr>
</tbody>
</table>

Source: Author based on TorrentFreak data.

Much of this traffic comes from outside the United States, where local distribution of hit series is usually delayed by months and sometimes years. Television networks have been very slow to adopt the global simultaneous release practices of the major studios. Until recently, even major English-speaking markets like Australia waited a year or more for the broadcast of American hits. The international premier of *Lost* one week after the US broadcast in February 2010 represents the most radical compression of TV windowing practices to date.
The underground distribution of American TV shows is an example of the incomplete globalization of media documented throughout this report, in which global media cultures and global marketing efforts outstrip nationally bounded, time-delayed distribution channels. The role of “national” P2P sites specialized in local media reflects the same breakdown of industry time-management. These sites—DesiTorrents in India, Torrents.ru in Russia, and many others—cater to much smaller publics than the most visible global torrent sites like The Pirate Bay and Mininova. They also disproportionately serve diasporic communities, who often live in high-bandwidth countries with limited access to music, television, and movies from home. Over 20% of the DesiTorrents user base is in the United States and the United Kingdom. Fan-based subtitling communities have also played a role in the circumvention of slow—or sometimes nonexistent—exportation and localization of media products. Anime fan communities began subtitling series available only in Japan in the early 2000s, signaling market demand that distribution companies eventually recognized and moved to meet. Bollywood films are commonly subtitled for African and Asian pirate distribution. The enormously popular Brazilian site, Legendas.tv, distributes only subtitle files for video downloaded through other means. It delivered a complete Portuguese version of *Lost* four hours after the US premiere.

**Entertainment Software**

According to the ESA, entertainment software sales in the United States reached $11.7 billion in 2008, registering a 28% jump over 2007’s already record-setting numbers and surpassing revenues from both movie tickets and CD sales. The global market for games, including those played on personal computers, consoles, and mobile devices, reached $46.5 billion in 2009 (Wu 2010).
Console games account for the lion’s share of this revenue—some 39% of the total in 2007, according to the Interactive Software Federation of Europe (ISFE 2009). Sales numbers for PC games are harder to characterize because they are generally split between stand-alone games, which have been in slow decline for a decade and currently represent a $4 billion market, and online games such as World of Warcraft, which represent a $7–8-billion market on the PC and a $15-billion market across all platforms. Mobile and handheld games account for another $13 billion.

By most industry accounts, video-game piracy is concentrated within the traditional stand-alone PC-game market, resulting in pressure on developers to abandon the PC in favor of console-only titles. PC games with cracked serial numbers or activation codes are widely available online and in pirate optical disc markets. Unlike record companies or film studios, PC-game developers and publishers have a variety of ways of estimating the prevalence of pirated copies of their games, such as tracking the percentage of calls to technical support from gamers playing with pirated copies (Ghazi 2009). For popular games, reported ratios of ten pirated copies for every purchased copy are routine.

Console games have traditionally been less vulnerable to piracy because of the technical knowledge needed to install a “mod chip” or patch a console’s operating system. Among current-generation consoles, both the Wii and the Xbox 360 can be “soft-hacked”—that is, modified without replacing chips. The PlayStation 3 has proved a much tougher nut to crack, with usable hacks available only in late 2010. Complete “modded” consoles can be purchased through retail in many parts of the world, and simple-to-install, mass-produced mod chips have been introduced for a number of systems—with much of the attention falling on the Nintendo DS.

“Anti-circumvention” rules criminalizing the modding of systems are a major feature of the WIPO Internet Treaties, but courts in several countries, including Canada, Spain, France, and Australia, have found wide latitude for modding under existing copyright law, primarily on the grounds that the circumvention of protection measures is not itself an act of copyright infringement and has substantial non-infringing uses. In the United States, the Digital Millennium Copyright Act incorporates strong anti-circumvention language and industry groups have been successful in pushing law enforcement to bring criminal complaints against both modders and mod-chip vendors.

44 Such as opening up traditionally closed systems like the Nintendo DS to the developers of “home-brew” software that expands the functionality of the device (without paying Nintendo licensing fees). This is the subject of an ongoing battle between Nintendo and video-game-accessory distributor Divineo over the sale of “linkers,” which allow access to the otherwise closed Nintendo DS operating system. Nintendo won two favorable verdicts against Divineo in the United States and in Hong Kong in 2006 (the latter in absentia) but lost a 2009 verdict in the Paris High Court, where the judge found Divineo to be operating legally under French and European law that privileges interoperability between systems. The ruling over whether Nintendo has a right to maintain a closed system is emerging as a flashpoint in the larger battle over consumer and corporate rights over devices. Nintendo has appealed.
Despite the prominence of modding in enforcement conversations, we are aware of no research on the prevalence of mod chips or modded systems and cannot find a credible estimate of how far the practice goes beyond tech-hobbyist communities. In 2007, Nintendo claimed that some seven million DS handhelds had been modded via a widely available Chinese-produced chip, contributing what Nintendo characterized as losses of $975 million across platforms (Nintendo 2009). Nintendo’s USTR submission for 2009 singled out Mexico, Brazil, China, Paraguay, and South Korea as hot spots for game piracy. The major US enforcement action against modding in recent years—Operation Tangled Web in 2007—netted just

**Xbox Live in Brazil**

In many countries, it can be difficult to be a legal gamer. Although game culture has become global in the past decade, game markets, in many instances, have not. In Brazil—by all accounts a high-piracy country for video games—Sony has withheld release of PlayStation 3 despite its relative immunity to hacking.* Microsoft and Nintendo market current-generation consoles and games in Brazil, but most third-party game publishers do not, resulting in a very diminished legal retail market. Brazilian customers have been locked out of many of the newer digital services, such as Xbox Live, a popular online portal that enables Internet play of Xbox 360 games, which was not launched in Brazil until late 2010. Adding to the difficulty, prices for consoles and most games are higher than in the United States and Europe. An Xbox 360 that costs $299 in the United States retails for over $700 in Brazil—a premium attributable to high taxes on foreign-software imports and complicated local certification requirements.

Brazilian use of Xbox Live exemplifies the complex geography of gaming markets. The service, which costs $60 per year, is for many gamers a primary reason to buy an Xbox 360. The subscription model also ties the Xbox into much stronger server-based authentication of hardware and games. Although the console has been successfully hacked, the Xbox Live service has not, enabling Microsoft to effectively exclude users of modded machines. Before the service was legally available in their country, Brazilian gamers got around this by subscribing under false addresses, and—according to our sources—they mostly still do: a recent spot-check found that the Brazilian version of the service had only a few games available.

The in-service economy based on Live Points had also been closed to Brazilians, but there are many sources of unofficial currency exchange that enable residents of unsupported national markets to pay and play. Microsoft can identify player location by IP address but has a variety of reasons for tolerating these practices and their associated informal markets—among them, the intense customer loyalty demonstrated by the effort to access the service. Among hard-core gamers, high game prices and the high value of the Xbox Live service can justify having two Xbox 360s: one modded for pirated games and one reserved for Xbox Live use. Similar strategies allow Brazilians access to Sony’s online portal, the PlayStation Network, which is still unavailable through legal channels.

* correction: Sony launched the PS3 in Brazil in August 2010, for the modest price of $1225.
61,000 mod chips, however, suggesting a problem on a much smaller scale, at least in the United States (Associated Press 2007a). The ESA, for its part, indicates that its analysis of online distribution finds comparable numbers of pirated console and PC games—challenging conventional wisdom on this point and pointing to a mass-market phenomenon. Clearly, this is a subject requiring more detailed study.

A large part of the game business operates on a model that is, for all intents and purposes, immune to end-user piracy. Online PC games such as *World of Warcraft*—a category worth some $7 billion in 2007—operate on monthly subscriptions, which makes unauthorized use for any length of time virtually impossible. A wide variety of other game types are increasingly tethered to publishers’ servers and require online authentication to play. The relative ease with which game producers can incrementally add value to games in return for the validation of copies also represents a powerful anti-piracy tool, contributing to the game industry’s robust position among the copyright industries. Unlike film, music, or business software, games often entail a relationship between the consumer and the developers or publishers that extends beyond the initial sale and often feeds back into game development. Developers are solicitous of these relationships, and the game community often responds with considerable loyalty. Online game forums host heated debates between consumers about the ethics and practice of piracy that, in our experience, are unique among the copyright industries.

### Why Is Business Software Piracy Different?

The business software market is unique to an extent that warrants a very different understanding of piracy. As we noted earlier, the BSA has simultaneously the most robust model for estimating rates of piracy and—prior to 2010—the most exaggerated model of actual losses. The now defunct assumption of a one-to-one ratio of piracy to lost sales has been only part of the problem, however. More significant, in our view, is the elective blindness of the BSA and many industry representatives to the value of the network effects generated by piracy in emerging software markets.

In software markets, network effects refer to contexts in which the value of software rises with the size of the installed base. The more widely used a piece of software or software service, the more it becomes a de facto standard that shapes user decisions about adoption and investment. Platform technologies such as operating systems exhibit strong network effects because a popular platform will foster a rich secondary market in applications and services, which in turn increases the platform’s value. “Lock-in” occurs when the costs of leaving a particular software environment are high—whether because switching would require significant...

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45 In 2008, some thirty-five million game consoles were sold in the United States.

46 Both the ESA and the IIPA have reported the growth of fraud in the online-game sector—generally in the form of copycat servers hosting subscription-based games. Whether this is a serious problem or not is unclear. We have seen no estimates of the scale of this practice, and it appears to be entirely addressable in a commercial infringement and consumer fraud context.
repurchasing of software, or because the use of less common standards is disadvantageous, or simply due to costs of retraining. For near-monopolies such as Microsoft in the operating systems and office software markets, network effects reinforce market power and increase the value of their products. Lock-in effects, in turn, ensure that customers are less likely to switch to competitors.\(^{47}\)

As BSA piracy figures indicate, these dynamics in emerging economies are primarily (and sometimes overwhelmingly) a function of pirated-software adoption, not legal adoption.\(^{48}\) Piracy, in effect, has allowed the major vendors to dominate low- and middle-income markets (or, as they develop, market segments within them) that they have little financial incentive to serve. Perhaps most important for market-dominating firms, piracy acts as a barrier to entry for competition, especially “free” open-source alternatives that have no upfront licensing costs. When these emerging markets begin to grow, as most did in the last decade, piracy ensures they do so along paths shaped by the powerful network and lock-in effects associated with the market leaders.

In our view, these factors should figure in any full accounting of the costs and benefits of software piracy. Top-tier vendors have established and maintained their dominant positions in emerging markets through piracy, often prior to or in the absence of significant local investment. Any losses they incur at the margins of the consumer and business markets in those countries should be weighed against the value of maintaining their dominant positions. For near-monopolies, we would argue that this value is very high. For vendors working in highly competitive markets or selling products that do not function as standards or platforms, that value is clearly lower. We have seen no work that empirically measures or distinguishes these effects and so can only speculate here as to their relative worth.

Enforcement representatives interviewed for this project generally disagreed with this view of how software markets work and held to the notion that piracy is first and foremost a loss of revenue and a disincentive for investment—both foreign and local. We call this elective blindness because the relationship between piracy and network effects appears to be well understood elsewhere in these firms—including among such industry leaders as Bill Gates, who has referred repeatedly to the importance of piracy in securing market share and undercutting Linux adoption in China.\(^{49}\) As Microsoft executive Jeff Raikes observed: “In the long run the

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\(^{47}\) There is an extensive and—for the most part—highly speculative business literature on network effects that has attempted to model the decision points that shape policies of tolerance and enforcement toward software piracy (for an overview, see Katz [2005]). The actual estimation is highly complex, and we are unaware of any compelling estimates across different software lines or in developing countries.

\(^{48}\) BSA-derived rates of software piracy in Russia hovered around 90% through the early 2000s. China was at 90% as recently as 2008. India has spent most of the past decade around 70%; Brazil, 60%–70%.

\(^{49}\) Microsoft Chairman Bill Gates to students at the University of Washington, in 1998: “And as long as they’re going to steal it, we want them to steal ours. They’ll get sort of addicted, and then we’ll somehow figure out how to collect sometime in the next decade” (Grice and Jinnarkar 1998). Or more recently: “It’s easier for our software to compete with Linux when there’s piracy than when there’s not.
fundamental asset is the installed base of people who are using our products. What you hope to do over time is convert them to licensing the software” (Mondok 2007).

The major vendors have done just that in the past decade in the institutional sectors of emerging markets, through a combination of price discrimination and enforcement. This strategy has focused on computer manufacturers and vendors, large businesses, school systems, and other public-sector institutions because they combine two things the software companies like—relatively high ability to pay and vulnerability to enforcement—with two things that they don’t like but must confront: sufficient market and/or political power to extract pricing concessions and sufficient technological capacity to make credible threats of open-source adoption. In 2007, the Russian government played this game with a consortium of commercial vendors to obtain a 95% discount on Windows and a bundle of productivity applications for Russian schools. Chinese municipalities did so in 2008, following a Chinese edict requiring legal software in government use. The Indian state of Karnakata did so in 2009 for its government agencies, and so on. In both the Russia and China cases, the BSA cited the licensing of public institutions as a major factor in reported drops in the local rates of piracy (BSA/IDC 2009). When these licenses come up for renewal (in the Russian case, at the end of 2010), network effects and lock-in costs will factor on the side of commercial vendors in any renegotiation.

In the retail channel, in contrast, prices remain very high relative to local incomes—usually matching and sometimes exceeding US or European levels. One might reasonably ask why. It is no secret, including among vendors, that very few Indian or Brazilian customers will pay $300 for Windows or $1,000 or more for Adobe’s Creative Suite. There is no significant market at that price level. In practice, however, vendor strategies don’t require one. The retail channel plays a very small part in the marketing strategies of the major vendors even in developed countries and far less in developing ones where price/income ratios are several multiples higher.50 The institutional channel is the revenue generator.

Retail prices, in these contexts, can remain high because the retail market is not needed to build market share. Piracy does that. High retail prices are, nonetheless, valuable for two reasons: they prevent arbitraging of low-priced goods across borders,51 and they set expectations about how much software should cost—and accordingly set a baseline for licensing deals. Some vendors have made efforts to “complete” these underserved markets through price discrimination in the retail sector, but without notable success. Efforts to sell stripped-down versions of Windows—the various “Starter” packages announced over the past decade—are

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50 According to quarterly earnings reports, Microsoft’s consumer market—here including retail purchases and (often discounted) sales through manufacturers—represents around 20% of total business software revenue.

51 Even of local-language software, which generally sells at no more than a slight discount.
perhaps the best-known example, widely distributed but doomed in markets where full versions are available at little or no cost. As an Indian respondent observed: free software in India means Microsoft Windows.

The BSA's valuation (until 2010) of every pirated copy as a lost sale is worth returning to in this context because we can now see that it answers the wrong question. In a market dominated by volume-licensing deals, the question is not “how many legitimate copies does piracy displace,” regardless of whether the answer is 90% or 10%, but rather: “given the high market share already achieved by vendors in high-piracy markets, for which segments of the market are price discrimination and enforcement profitable strategies?” Here, vendors face the downside of economies of scale: the smaller the customers, the higher the costs of engaging them in contracts or threatening them with enforcement. Completing a market, in this context, is an expensive proposition with diminishing returns. In our view, the BSA piracy rates are descriptions of this decision point.

Small business is the main enforcement frontier, actively contested by the BSA and local affiliates, the major vendors, and police. Small and medium-sized businesses face sharp dilemmas insofar as they are vulnerable to enforcement, lacking in leverage with software vendors, and often unable to afford operating fully within the licit economy. A software-compliance audit or raid can be a business-threatening experience in such circumstances, as we document in our Russia study. The BSA, for its part, is regularly criticized for its small-business enforcement tactics, which include unrealistic proof of licensing requirements and a practice of basing settlements on the unbundled, highest-possible-retail-price of infringing software rather than the actual purchase cost (Associated Press 2007b). Such practices are in notable contrast to the accommodations and discounts made for large institutional infringers and are part of a dynamic in which enforcement does not so much dissuade piracy as enable price discrimination—down or, occasionally, up in the form of settlements—based on the power relations between the two parties.

The acceptability and even optimality of this approach can be weighed against the various alternatives available to business software vendors. All the major companies could adopt stronger online authentication measures, making it more difficult to use and maintain pirated software. All of them could create obstacles to the over-installation of licensed copies within businesses, which is routinely cited as the most prevalent form of infringement. But strong versions of these options go unexercised for a variety of reasons, including fear of alienating paying customers, fragmenting the installed-code base (which could increase security risks for licensed users), and diminishing the other positive network effects of widespread use.52

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52 As Bradford Smith, deputy general counsel for Microsoft, characterized it in 2001: “By the late 1980s every single company abandoned that approach [copy protection] for the simple reason that legitimate customers did not like it. They found that there were times when they needed to make additional copies: they sold the computer and bought a new one and wanted to move their software, or their hard discs crashed and they needed to reinstall it. And even though at the time worldwide piracy rates for software were in excess of 80% the need to take care of the legitimate 20% of the market place took precedence over trying to deal with the rest. And that same bias very much exists today, I see it all the
The anti-piracy strategies of PC-game publishers in the past few years offer an informative contrast. Because games rarely function as platform technologies or standards, publishers have less to gain from the network effects associated with piracy and have moved much more quickly toward strong forms of online authentication. Despite a number of controversial missteps and botched launches (for example, *Spore* in 2008 and most of the Ubisoft lineup in 2010 when its authentication servers crashed), the lock down of the PC-gaming environment is well underway.

Credible threats of open-source software adoption in Brazil, Russia, India, South Africa, and many other countries also place a sharp upper bound on business software enforcement strategies. Once again, the logic is simple but rarely acknowledged: the most likely consequence of the widespread enforcement of licenses in Russia or China would be the widespread adoption of open-source alternatives—and very possibly a spur to development of alternatives where no open-source equivalents yet exist, as in the case of Autodesk’s specialized AutoCAD tools. As we detail in our Russia and India chapters, these risks are not hypothetical: Microsoft and other vendors go to great lengths to underbid open-source providers in institutional contexts to ensure that open-source adoption does not reach the point where it generates comparable network effects. Where the institutional or symbolic stakes are unusually high, this competitive dynamic can push licensing fees to zero.

Given the rules of this game, open-source adoption policies have become targets of IIPA criticism, despite the irrelevance of this issue to IP protection. The government of Indonesia, for example, characterized its recently announced open-source procurement policy, plausibly, as a measure to combat the use of infringing software. Rather than applaud the measure, the IIPA’s 2010 report criticized Indonesia for establishing a trade barrier that “does not give due consideration to the value of intellectual creations” and, as such, “fails to build respect for

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53 For a textbook example, see Volker Grassmuck’s study of Linux adoption in Munich in Karaganis and Latham (2005).
intellectual property rights” (IIPA 2010b). Whether such procurement policies represent a trade barrier—unjustifiable or not—is a worthwhile question that has been debated within the open-source community (O’Reilly 2002). But the implication that open source undermines IP rights is tendentious. Quite the contrary, open-source licensing derives from and depends on strong copyright.

The BSA continues to push the enforcement envelope by calling for stronger penalties and audit powers, including the criminalization of “organizational end-user piracy” to increase pressure on businesses. End-user criminal provisions have been implemented in a handful of countries, mostly through US-driven bilateral agreements (for example, in Australia and Singapore), but they go significantly beyond international IP obligations under TRIPS and remain controversial. This is true in the United States as well, where end-user criminal liability is implied in the sweeping No Electronic Theft Act (1997) but has never been targeted. Given the viability of the institutional-legalization strategy and the balancing act between enforcement and open-source adoption, we see little incentive for the major commercial vendors to upset the status quo.

In the end, with growth rates around 30% and high-value network effects structuring key software markets, we see no strong evidence that there are any real losses to market leaders from business software piracy. But the enforcement effort does play an important role in defining the boundaries of vendor institutional-licensing strategies. With the massive subsidization of local IT infrastructures through pirated software and—to date—very inconsistent adoption strategies for open-source alternatives, it appears that most governments are also willing to play this slow game of legalization with vendors, with cooperation on enforcement and open-source adoption as the carrot and stick.

**Pricing**

Price comparisons between pirated and licit goods in different countries offer a simple but powerful lens on the organization of national media markets. To illustrate these differences, we compared the most common legal prices of a range of media goods to the most common pirate prices and then translated those numbers into a “comparative purchasing power” (CPP) price that reflects how expensive the item would be for Americans if priced at an equivalent percentage of US per capita GDP (table 1.3).

Prices were collected in late 2008 and 2009 and should be treated as approximations. The prices of goods vary according to a range of factors, including the location of sale, perceptions of demand, and—in the pirate market—differences in quality, packaging, and degree of

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54 Similar complaints appear in the 2010 IIPA reports on India, Brazil, Thailand, Vietnam, and the Philippines.

55 IMF 2009 estimates for exchange rate (OER) GDP per capita are used here rather than the more common purchasing power parity (PPP) numbers—United States: $46,857; Russia: $8,694; Brazil: $8,200; Mexico: $8,135; South Africa: $5,824; India: $1,031.
bundling of goods on a single disc. Currency fluctuations also have a large impact on price comparisons. To facilitate comparison, we focused on single-title, high-quality CD and DVD equivalents of licit goods.

**Table 1.3 Comparative Prices: International Hits, 2008–9**
*Parentheses indicate lowest observed price (generally wholesale).*

<table>
<thead>
<tr>
<th></th>
<th>Legal Price</th>
<th>CPP Price</th>
<th>Pirate Price</th>
<th>Pirate CPP Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coldplay: Viva la Vida (CD)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>$17</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Russia</td>
<td>$11</td>
<td>$55</td>
<td>$5</td>
<td>$25</td>
</tr>
<tr>
<td>Brazil</td>
<td>$14</td>
<td>$80</td>
<td>$2.5</td>
<td>$14</td>
</tr>
<tr>
<td>South Africa</td>
<td>$20.5</td>
<td>$164</td>
<td>$2.7</td>
<td>$22</td>
</tr>
<tr>
<td>India</td>
<td>$8.5</td>
<td>$385</td>
<td>$1.2</td>
<td>$54</td>
</tr>
<tr>
<td>Mexico</td>
<td>$14</td>
<td>$80.50</td>
<td>$1.1</td>
<td>$5.75</td>
</tr>
</tbody>
</table>

| **The Dark Knight (DVD)** |             |           |              |                  |
| United States  | $24         | —         | —            | —                |
| Russia         | $15         | $75       | $5           | $25              |
| Brazil         | $15         | $85.50    | $3.50        | $20              |
| South Africa   | $14         | $112      | $1.2.8      | $22.40           |
| India          | $14.25      | $641      | $1.2        | $54              |
| Mexico         | $27         | $154      | $1.75       | $4.25            |

*Source: Author.*

Coldplay’s album *Viva la Vida* and Warner Bros.’ movie *The Dark Knight* were blockbuster international hits in 2008. Coldplay has sold over nine million *Viva la Vida* CDs since its release, and the album topped the charts for digital downloads for months. *The Dark Knight* brought in over $1 billion in global box office receipts and broke all records for DVD sales when it was released toward the end of 2008.

Although quintessential global goods in many respects, these products are not trade goods in the same sense as cars or electronics or other manufactured items. Albums and films are licensed separately in each country in which they are sold. The license generally permits the reproduction of a specific number of copies, which are almost always produced locally. The parallel importation of copyrighted goods is restricted in many countries, ensuring that differences in pricing cannot be easily arbitrated.

Licensing costs are controlled by the rights holders—nearly always the major labels, software
publishers, or studios. In the case of music licensing, the final retail price is often the result of deals between the labels and other players in the distribution chain—distributors, retailers, and radio stations. This introduces variability in pricing, with prices for the same album differing significantly from one country to the next.

Film studios demonstrate stronger consistency around pricing. The DVD for a major recent release starts at $14–$15 in most markets, with higher prices the norm in some countries. With the exception of some brief experiments with cheap DVDs, notably in China and Eastern Europe, the major studios have made very few efforts to cater to differences in local incomes or to price goods at levels that compete with the pirated goods. In neither the film nor the music market are goods priced at levels that serve more than a niche customer base. CDs and DVDs remain luxury items in most middle- and low-income countries. Price/income ratios roughly comparable to those of US and European media markets are found only in the pirate markets in these countries.

This dynamic extends to locally produced music and film (table 1.4). Local record labels are not as constrained by the norms of major-label return on investment and generally have a stronger interest in promoting live performance. Local CDs, consequently, demonstrates more variability in price. This flexibility is not present for most domestically produced films, however, which generally only range “up” from the high floor set by distributors. Unlike local music labels, local film studios are already tightly integrated into international networks of film production, distribution, and anti-piracy enforcement and follow their pricing conventions.

**Table 1.4 Price Comparison: Domestic Hits, 2008–9**

<table>
<thead>
<tr>
<th>Domestically Produced Hit Albums</th>
<th>Legal Price</th>
<th>CPP Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Krematorium: Amsterdam</em> (Russia)</td>
<td>$6.50</td>
<td>$32.5</td>
</tr>
<tr>
<td><em>Thermal and a Quarter: first album</em> (India)</td>
<td>$7</td>
<td>$315</td>
</tr>
<tr>
<td><em>Victor and Leo: Borboletas</em> (Brazil)</td>
<td>$9.50</td>
<td>$54</td>
</tr>
<tr>
<td><em>Thalia: Primera Fila</em> (Mexico)</td>
<td>$15</td>
<td>$86</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domestically Produced Hit Films</th>
<th>Legal Price</th>
<th>CPP Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tropa de Elite</em> (Brazil)</td>
<td>$10</td>
<td>$57</td>
</tr>
<tr>
<td><em>The Inhabited Island (Obitaemiy Ostrov)</em> (Russia)</td>
<td>$15</td>
<td>$75</td>
</tr>
<tr>
<td><em>Mr. Bones 2</em> (South Africa)</td>
<td>$18</td>
<td>$144</td>
</tr>
<tr>
<td><em>Arráncame la Vida</em> (Mexico)</td>
<td>$17.6</td>
<td>$100</td>
</tr>
<tr>
<td><em>Jaane Tu... Ya Jaane Na</em> (India)</td>
<td>$3.8</td>
<td>$171</td>
</tr>
<tr>
<td><em>Oye Lucky! Lucky Oye!</em> (India)</td>
<td>$2</td>
<td>$90</td>
</tr>
<tr>
<td><em>Mission to Nowhere</em> (Nigeria)</td>
<td>$3</td>
<td>$123</td>
</tr>
</tbody>
</table>

Source: Author.
The Movies Go Upmarket

Although US domestic box office revenues have grown 40% since 2000, the real growth markets have been overseas. Box office revenues have roughly quadrupled in India since 2000 and tripled in Brazil; they have tripled in Russia since 2004.\(^1\) Because this growth took place against low baselines, however, these markets remain very small compared to their US and European counterparts. Nearly all of it, moreover, is attributable to rising prices rather than increased attendance (Figure 1.5 and Figure 1.6). Movies have moved rapidly upscale in the past decade, tracking growing middle-class affluence in industrializing countries. (In the United States, attendance has slightly fallen since 2000.) The push toward 3D and IMAX theatres is the next round of this premium-pricing strategy.

In countries where domestic companies actively compete for audiences, average price is usually hard to calculate: exhibitors practice elaborate price-discrimination strategies, including different tiers of theatres, various club or subscription discounts, and—in India—differential pricing for better seats and services within the same theatre. India stands out for its extraordinarily wide range of prices, from $0.60–$0.70 seats in the older cinema halls to a $10–12 high-end reserved for Hollywood and top-tier Bollywood films. This mix of exhibition spaces ensures that Indian film remains available to a broad audience: Indian per capita annual movie attendance hovered around three throughout the last decade—a number that dwarfs attendance rates in other developing countries. But even in India, average prices have risen dramatically.

Price increases may well be a valid revenue-maximizing strategy: audiences have proved relatively insensitive to price so far, though it is not hard to imagine an eventual tipping point in this relationship. But the price increases have also significantly expanded the gap between the licit and illicit markets and narrowed the margin in which the pirate and licit markets can be plausibly said to compete.

The only country to buck this trend, in our study, is South Africa, where the dominant distributor, Ster-Kinekor, lowered prices in 2005 in a bid to attract the growing black middle class. In so doing, it triggered a price war that sent tickets below $2. The result was a bifurcated market in which the two major exhibitors established premium and budget cinema chains, each showing Hollywood films at dramatically different prices. This model survived the end of the price war in 2007 and is this report’s only example of a price-cut driven effort to expand film audiences.

\(^{i}\) Mexico and South Africa saw much lower growth in the period, and we were unable to find numbers for Bolivia.
Figure 1.5 Average Ticket Prices (in dollars)

Source: Author based on data from European Audiovisual Observatory (2001–10).

Figure 1.6 Movie Admissions Per Capita Per Year

Source: Author based on data from European Audiovisual Observatory (2001–10).
The most notable exceptions to this rule are India and Nigeria—both of which host large domestic film industries that compete for local audiences. The ticket and DVD pricing structure in India is strongly bifurcated between Hollywood films exhibited at close to Western prices and Indian films extending into much lower price tiers. A number of the major DVD distributors—notably Moser Baer, the largest Indian distributor—have gone further in upsetting licensing conventions in the DVD market, creating a mass market for Indian home video that competes with the high end of the pirate market. The Nigerian home-video market—built largely on the piracy of Bollywood films and still very reliant on informal vendor networks for distribution and sales—also operates at a price level that competes with pirated DVDs (Larkin 2004). The main lesson of this price comparison is relatively simple: in countries where domestic companies dominate production and distribution, those companies compete on price for local audiences. In countries where domestic production and distribution is controlled by the multinationals, they generally don’t.

Pirate CD and DVD pricing also indirectly illustrates the different structures of pirate markets in these countries. In the early 2000s, the retail price of a pirated DVD in all these countries was in the vicinity of $5. By 2009, the price had dropped to $1 in many countries, with wholesale and lower-quality retail discs often available for significantly less. Our work suggests that $1 is the current retail floor for decent-quality DVDs in competitive pirate markets—including competition from other vendors and, increasingly, from the Internet. Anything above $1 reflects a constraint on trade, whether due to enforcement, higher-priced inputs, or collusion between vendors. The country studies in our larger report offer examples of all three.

The high prices of pirated goods in Russia and the United States stand out in this context. In the United States, the pirate optical disc market has all but disappeared—displaced by P2P and other digital services. Pirated goods at the organized-retail level are virtually nonexistent. Street vendors can still be found in major US cities but fill only niche markets, such as the markets for “camcordered” copies of new movie releases or specialty genres like reggae. High prices in the United States reflect this niche-market status and, more generally, a higher ability to pay.

High prices for pirated goods in Russia, on the other hand, appear to reflect the successful consolidation of production in the hands of large-scale and—by many accounts—state-protected pirates, who have acquired enough market power to prop up prices. A key component of this consolidation was the crackdown against small-scale retail and local producers that began in 2006, which swept away the middle tier responsible, in other countries, for the strongest competition on price and volume production.
The China Syndrome

The rule of high multinational DVD pricing has a number of minor exceptions, several of which are documented in this report, and to date, one major one: China. Between 2003 and 2007, DVD prices in China dropped from an average of 100 renminbi ($15) for international titles and 50 renminbi ($7.50) for domestic ones to as little as $1.50 for foreign titles and $1.20 for many domestic ones. Today, most high-quality foreign titles are sold for around 20–30 renminbi ($3–$4.50), with cheaper versions generally available in the lower-quality DVD-5 format.

Price-cutting was initiated by the domestic studios in response to the growing divide between legal and pirate prices. Because the Chinese market is overwhelmingly dominated by domestic, state-controlled studios and distributors, state studios wielded enough market power to compel the marginal foreign players to follow. Warner Bros. and Paramount Pictures, eager to maintain their positions in the Chinese market, made their own price cuts in 2007—led by Warner Bros.’ “10-Renminbi Blockbuster” collection of popular movies in DVD-5 format, available for roughly $1.50. Because this low-cost initiative put no measurable dents in the pirate marketplace, it was discontinued the following year.¹ Licit prices subsequently rebounded slightly, and volume retailers like Walmart now sell new-release DVDs for around 22 renminbi ($3.20).

Today, DVD prices in China are sufficiently compressed that the important market differentiator is more often the quality of the copy than the price. Here, the studio’s attempt to differentiate cheap DVD-5 copies from higher-priced DVD-9 copies maintained the value window for pirated goods, and indeed a common criticism of the Warner Bros. effort was the low-quality of its recordings, jacket, and materials. This price compression is now moving into the emerging Blu-ray market, where both pirate and legal prices have dropped to as little as 30 renminbi ($4.50).

In our view, Warner Bros. and Paramount’s tolerance of lower prices in the Chinese market is part of a larger pattern of Chinese exceptionalism in the global media marketplace, in which the potential future size of the market (and the very aggressive present-day government intervention in it) dictates a short-term drive for market share and accommodation of the domestic incumbents rather than profits. Among other admittedly narrow data points, Microsoft sold Office 2007: Home and Student Edition in China for as little as $26 in 2010, dramatically undercutting the prices documented in India, Brazil, and other developing countries. Consistent with this exceptional status, we see little inclination among the multinationals to extend these pricing practices to other countries.²

¹ Interview with Warner Bros. representative.

² Findings on the Chinese DVD market draw on work conducted by Jinying Li.
Table 1.5 Comparative Prices: Software, 2009

Microsoft Office 2007: Home and Student Edition

<table>
<thead>
<tr>
<th>Country</th>
<th>Legal Price</th>
<th>CPP Price</th>
<th>Pirate Price</th>
<th>Pirate CPP Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$149</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Russia</td>
<td>$149</td>
<td>$745</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Brazil</td>
<td>$109</td>
<td>$621</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>South Africa</td>
<td>$114</td>
<td>$912</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mexico</td>
<td>$155</td>
<td>$883</td>
<td>$1</td>
<td>$4</td>
</tr>
<tr>
<td>India</td>
<td>$100</td>
<td>$4500</td>
<td>$2</td>
<td>$90</td>
</tr>
</tbody>
</table>

Halo 3 (Xbox 360)

<table>
<thead>
<tr>
<th>Country</th>
<th>Legal Price</th>
<th>CPP Price</th>
<th>Pirate Price</th>
<th>Pirate CPP Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$40</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Russia</td>
<td>$101</td>
<td>$505</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Brazil</td>
<td>$60</td>
<td>$342</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>South Africa</td>
<td>$53</td>
<td>$424</td>
<td>$30</td>
<td>$240</td>
</tr>
<tr>
<td>Mexico</td>
<td>$54</td>
<td>$308</td>
<td>$2</td>
<td>$11</td>
</tr>
<tr>
<td>India</td>
<td>$36</td>
<td>$1620</td>
<td>—</td>
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</tr>
</tbody>
</table>

Source: Author.

Software offers few surprises in this broader context. The retail prices for most productivity software in developing countries are at or near Western prices—with small discounts for local-language versions that have less export value. Such prices demonstrate the general irrelevance of the retail software market in these countries and provide a context for the different developing-market strategies proper to the two major software sectors: (1) volume licensing and institutional enforcement by the business software sector, and (2) technological lock down and underinvestment by the entertainment software sector. For the vast majority of consumers, the market remains split between exorbitant retail and cheap pirate goods (table 1.5).

Distribution

In middle- and low-income countries, the counterpart to high prices is weak distribution. Movie theatres, DVD and CD retailers, bookstores, and software vendors are scarce and typically clustered in the capital cities, in proximity to wealthy elites. Smaller cities and the provinces are chronically underserved—sometimes entirely so. In Brazil, the cities of São Paulo and Rio de Janeiro contain roughly 9% of the population but have 41% of the movie screens (Funarte 2009). In Russia, Moscow and St. Petersburg represent 11% of the population but have a third
of the screens (Berezin and Leontieva 2009). In South Africa, the first multiplex in a black township opened in 2007. The number of screens per capita in most countries is a fraction that of the United States, with density only slowly rising in the past decade (see figure 1.7). The quality of copies and exhibition infrastructure also falls off with distance. Despite the move toward global simultaneous release as a strategy to deter piracy, the circulation of new releases to the provinces often takes weeks as exhibitors wait for copies to rotate through their towns.

**Figure 1.7** Screens per 100,000 Inhabitants

Much the same is true in the optical disc market, where the status of discs as luxury goods generally ensures that they are only carried in a handful of retail chains. This has begun to change in several of the markets we examined as distributors try to combat the massive convenience advantage of pirate vendors, who simply sell where people congregate. In India, T-Series pioneered this approach with cassettes in the 1980s, distributing to a much wider array of vendors and retail outlets than other distributors had tried to reach. We document a number of cases in South Africa, Brazil, India, Russia, and Bolivia in which the superiority of the informal sector as a distribution channel has led legal distributors to try to adopt its methods and approach its price points, in some cases co-opting pirate networks to distribute competitively priced legal goods. The Nigerian home-video industry—the second-largest film
industry in the world in terms of the number of features released—was built primarily on such practices and is extending them throughout Africa (Larkin 2004).

The fate of such efforts, our work suggests, depends heavily on access to sufficient capital and market power to build new distribution channels over time—and in particular to prevail in conflicts with incumbent distributors for access to content. Such initiatives have proved viable for large firms in India and the United States but very fragile in emerging markets where multinationals dominate the production and distribution channels. The dilemma is a profound one for local artists especially, and it relegates most of the innovation in media access in developing markets to the legally contested or illegal margins of the media economy.

Where there is no meaningful legal distribution, the pirate market cannot be said to compete with legal sales or generate losses for industry. At the low end of the socioeconomic ladder where such distribution gaps are common, piracy often simply is the market. The notion of a moral choice between pirated and licit goods—the basis of anti-piracy campaigns—is simply inoperative in such contexts, an impractical narrative of self-denial overwhelmed by industry marketing campaigns for the same goods.

Looking Forward

Despite the rapid growth of broadband connectivity, the pirate optical disc trade remains the main form of access to recorded music and film in emerging markets. Enforcement efforts in these markets, accordingly, continue to focus on the links in this commodity chain, from optical disc producers, to distributors, to retailers, to street vendors. Online versions of these businesses—pay-MP3 sites and “download-to-burn” services—have also been targeted, and a handful of prominent cases have become points of contention in trade negotiations between the United States, Russia, and China. Business software enforcement, for its part, continues to focus on private companies and public institutions. Enforcement, in other words, is still directed at the commercial and institutional contexts of infringement, where policing and private settlements have relatively high returns.

As broadband connections and cheap digital storage become more common, however, the focus of enforcement is shifting toward non-commercial activity and the consumer space. The crowding out of the industrial-retail-disc pirate chain by non-commercial digital piracy is largely complete in high-income countries and underway in the middle-income countries we examined. The targeting of BitTorrent sites and other P2P services is part of this shift, and courts have generally been receptive to industry arguments about third-party liability in such contexts, even when these sites do little more than replicate the functionality of search engines. But developing countries are ill equipped and, so far, disinclined to bring enforcement to bear against consumers—especially stronger criminal procedures. Despite significant pressure from industry, none of the countries examined here have tried. The push for three-strikes laws will be a significant test of this position in the next years.

Not all content-industry positions point in the direction of stronger enforcement, however. Industry positions are evolving as conventional wisdom begins to assimilate the breakdown
of the older commodity chains and as businesses conceived as responses to that breakdown become incumbent players in their own right. Shifts in the way industry representatives speak about piracy and technological change provide a good indicator. From the early 1980s through the early 2000s, Jack Valenti of the MPAA arguably set the industry tone regarding the control of new consumer media technologies: a completely uncompromising one expressed most famously in his 1982 comparison of the VCR to a serial killer (Valenti 1982). The same hard line was still visible twenty years later, when Jamie Kellner of Turner Broadcasting claimed that “any time you skip a commercial . . . you’re actually stealing the programming” (Kramer 2002).

By 2009, however, it was possible to find even MPAA representatives with less Manichean views of unauthorized use and strikingly different accounts of piracy’s relationship to the licit market. In interviews in 2009, the director of special projects, Robert Bauer, sketched out a different agenda for the industry group: “to isolate the forms of piracy that compete with legitimate sales, treat those as a proxy for unmet consumer demand, and then find a way to meet that demand.”

The conceptual distance traveled between Valenti’s attacks on consumer copying and Bauer’s view of piracy as a signal of unmet consumer demand is considerable and, in our view, describes a split in the current debate about piracy and intellectual property within the various affected industries. For the past half decade, industry conversations have had a schizophrenic quality, marked by an enforcement debate organized around the hard line of Valenti and others and a business-model debate organized around the soft line articulated by Bauer.

Our work generally validates Bauer’s path as the only practical way forward for the media industries—and one well underway in countries with competitive media sectors. But it is not the only short-term path, and our studies raise concerns that it may be a long time before such accommodations to reality reach the international policy arena. Hard-line enforcement positions may be futile at stemming the tide of piracy, but the United States bears few of the costs of such efforts, and US companies reap most of the modest benefits. This is a recipe for continued US pressure on developing countries, very possibly long after media business models in the United States and other high-income countries have changed. This international policymaking landscape—and its drift toward stalemate—is the subject of the next chapter.

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56 Or Joe Biden, US vice president, in 2010, announcing the release of the US Joint Strategic Plan on Intellectual Property Enforcement: “Piracy is theft. Clean and simple. It’s smash and grab. It ain’t no different than smashing a window at Tiffany’s” (Sandoval 2010).
About the Chapter

Chapter 1 synthesizes and extends arguments developed throughout the report. It relies heavily on the research conducted for the other chapters, as well as on a range of contributions from team members and other researchers, including Jinying Li, Jaewon Chung, Emmanuel Neisa, Nathaniel Poor, Sam Howard Spink, and Pedro Mizukami. The chapter also draws on correspondence and interviews with roughly thirty experts in the piracy research and enforcement fields, including staff at the IIPA, the BSA, the RIAA, the IFPI, and the MPAA. This input was invaluable on many levels and kept the chapter grounded, whenever possible, in the details of business practices and empirical cases.

Synthetic work of this kind presents a variety of difficulties, most immediately in the pricing study where shifting exchange rates, especially, make comparisons approximate and unstable over time. Access to reliable data is another problem in this area, with many sources on media markets either proprietary, not comparable across countries, exorbitantly priced, or some combination of the three. We have done our best to cobble together market structure data from authoritative sources—which are often themselves cobbled together from other sources.

Since there is no overall acknowledgments section for this report, I will give special thanks here to Alyson Metzger, who improved the report in innumerable ways as an editor and copy editor, and to Jaewon Chung, who wore many research and management hats over the life of the project. The report layout and design are the work of Rosten Woo. And we have enjoyed the constant and very patient support of our funders at the Ford Foundation and the IDRC, with thanks especially to Alan Divack, Ana Toni, Jenny Toomey, Phet Sayo, and Khaled Fourati.

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AFTRA (American Federation of Television and Radio Artists), Directors Guild of America (DGA), International Alliance of Theatrical and Stage Employees (IATSE), Motion Picture Association of America (MPAA), National Music Publishers’ Association (NMPA), Recording Industry Association of America (RIAA), and Screen Actor’s Guild (SAG). 2010. Letter to the Intellectual Property Enforcement Coordinator (IPEC) in response to request for written submissions, March 24.


