



March 24, 2010

Re: Comments on the Joint Strategic Plan

Victoria Espinel
Intellectual Property Enforcement Coordinator
Office of Management and Budget
Executive Office of the President
Filed via email

Dear Ms. Espinel:

The Social Science Research Council is concluding a 3-year study of software, film, and music piracy in developing countries, with detailed reports on Russia, India, Brazil, Mexico, Bolivia and South Africa. A portion of this work focuses on the measurement of losses to different stakeholders and the overall efficacy of different approaches to enforcement. In advance of the publication of this report, this comment summarizes some of the research, findings, and recommendations related to losses and enforcement. In particular, we expand on the following points:

- Enforcement has not worked
- The accurate measurement of piracy, in most product markets, is nearly impossible
- Claims of losses that are not transparent are not credible
- Are there any business software losses?
- National impact studies
- The organization of enforcement
- What we have, at present, is a confiscation regime
- Selective enforcement is the norm
- Does crime pay?
- Does education work?
- What is consumption?

SSRC piracy research has been vitally concerned with the task of fostering rich, diverse cultural production in the digital era. We do not minimize the challenges that piracy—and the digital transition more generally—pose to many existing business models. But our work has made it abundantly clear that, for better and for worse, we now live in a culture of the cheap, ubiquitous, largely uncontrolled digital copy, and that enforcement practices and related law need to recognize that. The various expansions of copyright enforcement proposed by industry groups: the move from commercial-scale infringement toward consumer-level practices; the shift from traditional due process to expedited or summary procedures; and the transition from primarily private to public financing of enforcement, raise a number of concerns in this context.

Most importantly, we do not see any prospect of seriously diminishing piracy via stronger enforcement measures—only of increasingly the number of people subject to random punishment for otherwise ubiquitous behavior. Enforcement policy should be designed around the expectation of continued high levels of piracy for certain kinds of goods. Nor do we see (yet) a proposed endgame for enforcement that would set limits on government investment in this area or on the erosion of civil liberties proposed by many of the industry groups. (And it is clear to us that Internet access will be an increasingly clear-cut civil liberties issue.)

In most of the countries we have examined, the imbalance between high prices for media goods, low incomes, and cheap digital technologies provides the obvious basis for high rates of media piracy. Relative to local incomes in Brazil, Russia, or South Africa, the average retail price of a CD, DVD, or copy of MS Office is 5-10 times higher than in the US or Europe. Licit media goods are luxury items in most parts of the world, and licit media markets are correspondingly tiny. In these contexts, piracy is not primarily an enforcement problem, but a business model problem. As Robert Bauer, former Director of Special Projects for Global Government Affairs at the MPA, observed recently:

Our job is 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.

We couldn't agree more. But this task is barely begun in middle and low-income countries and is only just underway in high-income countries like the US. Stronger enforcement practices, in our view, will have relatively little impact on this transition. And the creative industries that prosper in the digital era, our study suggests, will be the ones that answer that challenge.

Joe Karaganis
Program Director
SSRC

Enforcement has not worked

We can identify several *contexts* in which enforcement has been effective—notably retroactive software licensing efforts against large firms or public institutions, in driving optical disk piracy out of organized retail and, in several cases, in policing efforts targeting piracy during the release windows of domestic films—but *in the countries we have examined we see no evidence that enforcement activities to date have had any impact on the overall supply of infringed goods*. Indeed we see compelling evidence to the contrary. In most of the countries in our study with significant optical disk piracy, prices have plummeted in the past decade. The channels through which media can circulate—both on and offline—have proliferated and the technical infrastructure for sharing, storing, and playback has become increasingly ubiquitous, even in the poorest countries in our study. One practical consequence, in our view, is the significant underestimation of piracy in high-income countries, like the US, where that

infrastructure is most developed. In our view, strong 3-strikes or other similar measures would inconvenience certain kinds of piracy, but not greatly affect the overall diffusion of copies of new goods.

The accurate measurement of piracy, in most product markets, is nearly impossible

And several of the industry groups (MPA, IFPI, ESA) have stopped trying. We have seen a series of shifts in methods over the last decade as distribution channels evolved, from ‘supply-side’ estimates of disk piracy through the surveillance of retail sales points, to consumer surveys designed to address a mixed online/physical environment, to the pure online monitoring of P2P traffic. The first approach—always a best guess rather than a serious quantitative method—became unmanageable as optical piracy spread beyond the established retail channel (and as that channel, in some cases, was effectively suppressed); the second has become unreliable as the consumer experience of ‘collecting’ and ‘owning’ media gives way to more diffuse relationships to much larger personal and shared media libraries, often numbering in the thousands or tens of thousands of files; and the third is a battleground, marked by technological competition between trackers and service providers, and specifically by the shrinking role of P2P in the larger economy of digital distribution. With media collections measured in the terabyte easily passed back and forth on portable devices, we see no reason to think that ‘deep packet’ or other inspection of P2P or filelocker sites will significantly alter this equation. Like others, however, we think a privacy arms race is an entirely predictable outcome of expanded monitoring and consumer-directed enforcement.

Despite the tone of certainty that accompanies industry press releases about piracy, nearly all 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 standing by precise numbers. 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 sponsored the OECD 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 qualitative assertions about the scope of piracy. When the World Intellectual Property Organization opened its Advisory Committee on Enforcement meeting in November, 2009, it spent three days discussing the need for more research.

The OECD's hedging, in our view, is a sign that the golden age of big 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 on 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 with uncertainty in their research results—in our view,

because they are still enjoying the political advantages of earlier, uncontested discursive authority. As several representatives indicated, the case for massive losses has already been made.

Claims of losses that are not transparent are not credible

There has been wide range of criticism of industry approaches to measuring rates of piracy and losses to industry, and above all to the advocacy claims made with that research. Based on our work, we share concerns that industry groups have tried to ‘run up the score’ regarding losses at the expense of a realistic account of how their respective markets operate. We will not reproduce those critiques in detail here, because almost none of the industry work meets a more basic, prior standard: transparency regarding methods. Industry associations publish general descriptions of their methods, but little about the assumptions, practices, or detailed findings of their work. It is impossible to evaluate the BSA findings on rates of piracy, for example, without understanding the key inputs into the model: how they calculate the number of computers in a country; how they estimate the presence of open source software; or how they model the ‘average software load’ on machines in different countries. It is impossible to evaluate the MPA’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 file sharing). 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 IFPI manages the obvious challenges of aggregating the studies. Every report has its own secret sauce—the assumptions that anchor the methods and inform the results. The typical rationale for withholding such information is its commercial sensitivity. This is certainly possible in some cases—notably in the case of sales figures, which companies often treat as commercial secrets. But it can hardly explain the across-the-board reluctance of industry groups to show their work. 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, including specifically the OMBs own 2005 guidelines.

Are there any business software losses?

The BSA has simultaneously the most robust model for estimating *rates* of piracy and the most exaggerated model of actual losses. The presumed 1-1 ratio of piracy to lost retail sales is the clear starting point—an obvious fiction in a global market with almost no price discrimination and free, open-source alternatives in many categories. When John Gantz, research director at IDC, was asked this question in regard to business software piracy in developing countries, he suggested that possibly only 1 in 10 unauthorized copies represented lost sales, due to the high prices of western software in developing countries. Absent clearer data, we would call this a plausible guess—and one that would have dramatically changed the \$29 billion loss that 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). This, indeed, is the practice adopted on by the ESA when it estimates the value of the piracy market for game software.

Much more significant, in our view, is the elective blindness of the BSA and many industry representatives to the value of network effects generated by piracy in emerging software markets. This dynamic is a simple one: because high uniform pricing in developing countries guarantees tiny legal markets, *software companies need widespread piracy in order to secure market share and block the adoption of open source alternatives*. The universal enforcement of Microsoft or Adobe licenses in Russia or Brazil or China would lead, very quickly, to universal adoption of open source alternatives—and very likely to the development of alternatives where no open source equivalents exist, as in the case of Autodesk’s specialized AutoCAD tools. We call this elective blindness because the logic appears to be well understood by industry leaders such as Bill Gates, who has referred repeatedly to the importance of piracy in securing market share and undercutting Linux adoption in China.¹ As Microsoft executive Jeff Raikes observed: "in the long run the 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)

This peculiar dynamic has produced a very effective business model involving the widespread toleration of software piracy in emerging markets, followed by selective enforcement against businesses, the government, and other exposed institutions. These targets of enforcement are typically pushed into retroactive licensing agreements, often at a substantial discount for large-volume users such as municipalities and school systems. The Russian government cut such a deal for Russian schools in 2007, as have a wide range of Chinese municipalities following a Chinese edict requiring legal software in government use.

In our view, this is an optimal strategy for the software companies. It allows them to maintain high retail prices for business software, thereby protecting high value markets from parallel importation, while selectively lowering prices to affordable levels through retroactive deals with large local institutions. The BSA continues to push the enforcement envelope—calling, for example, for the criminalization of ‘organizational end-user piracy’ to increase pressure on businesses—but these proposals have to date met with little success. Credible approaches to diminishing software piracy through stronger online authentication measures are also available to software companies, but go mostly unexercised for fear of alienating paying customers. The major commercial software companies, in our view, have no incentive to significantly threaten the status quo.

Credible threats of open source software adoption in Brazil, Russia, India, and many other countries also place a sharp upper bound on these enforcement strategies, and consequently have become targets of recent IIPA criticism, despite the irrelevance of this issue to IP protection. Indonesia, for example, characterized its recent government 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 it for

¹ “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.” Microsoft Chairman Bill Gates (to students at the University of Washington, 1998). Or more recently: “It’s easier for our software to compete with Linux when there’s piracy than when there’s not.... You can get the real thing, and you get the same price.” Interview in Fortune Magazine, 2007.

establishing trade barrier that “does not give due consideration to the value of intellectual creations” and, as such, “fails to build respect for intellectual property rights” (IIPA 2010). Whether such 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. Open source licensing depends on copyright.

With growth rates of 30% and high-value network effects structuring key software markets, we see no strong evidence that there are *any* real losses to piracy. With massive de facto subsidization of local software infrastructures through piracy and—to date—very inconsistent adoption strategies for open source alternatives, it appears that most governments are also willing to play this game.

National impact studies

We note the growing number of studies that try to estimate the total impact of piracy on national economies. Stephen Siwek produced a number of these studies on behalf of the MPA, RIAA, and ESA in 2006-2007. BSA routinely describes the value of enforcement in terms of ‘jobs created’ from incremental reductions in rates of piracy. The ICC recently commissioned its own version of the Siwek studies for the European Union countries, “Building a Digital Economy: the Importance of Saving Jobs in the EU’s Creative Industries.” Invariably, the goal of these studies is to expand the debate about piracy beyond claims of losses to specific industries to losses to national economies, including especially lost jobs.

The inputs for these studies are generally the same industry piracy numbers about which critics have raised legitimate doubts. But, in our view, such studies have more fundamental problems with their premises, including their basic understanding of national economies and international trade. We would describe these as twofold:

1. Domestic piracy can impose losses on specific industrial sectors, but these are not thereby losses to the larger national economy. Within any given country, piracy is a reallocation of income, not a loss of it. Money saved on CDs or DVDs or software will be spent on other things—housing, food, other entertainment, etc. There is then a legitimate (and analytically very complex) question about whether these alternative uses represent more or less productive uses of money in comparison to additional revenues for the affected industries (Sanchez 2008). There has been, to the best of our knowledge, very little analysis of this issue—and none by industry. It is quite possible that these alternative uses are more productive, socially valuable, or job creating than additional investment in entertainment goods. A very credible Dutch government-sponsored study of these factors estimated the social welfare impact of music piracy in the Netherlands to be a net positive €100 million (Huygen et al. 2009).
2. *Where* losses fall depends heavily on the direction of trade. The global footprint of many film, music, and software companies makes the breakdown of revenue streams difficult, but the overarching dynamic is simple: for IP imports, *legal sales represent an outflow of revenue from the national economy. Piracy, in contrast, represents an at least nominal national welfare gain, in the form of increased access to valuable goods.* Because most countries are strong IP

importers from the US for movies, music, and software, the US bears, in principle, the majority of the loss. From the other side of the equation, however, piracy represents a strong net benefit. The ICC study, for example, gets this wrong ascribing €10 billion in piracy losses in Europe to European firms, in markets completely dominated by US firms.

Microsoft, in particular, has been sensitive to possible local indifference to the plight of Microsoft, and has consequently developed its own metrics for the contributions of legal Microsoft software to local economies: \$1 dollar in Microsoft revenues, it argues, generates \$8.70 in *local business revenues* (IDC 2009). Here we see the same selectivity at work. We take it as given that a rich, widely deployed, interoperable software ecology—such as the Windows ecology—has a large positive impact on productivity. But we see no reason why this is more true of Microsoft products than of its competitors. And indeed, compared to open source competitors, upfront licensing costs might indeed be significant. Here, IDC is silent.

The Organization of Enforcement

As the US begins its second effort in the past decade to reinvent IP enforcement coordination, we note the proliferation new agencies and coordination efforts underway in most other countries as well. Russian enforcement has also gone through two major revisions in the period, first with creation of the Governmental Committee for the Prosecution of Intellectual Property Violations, Its Legal Protection and Usage in 2002 (run by then vice-prime minister, Dmitri Medvedev), followed by major administrative reorganization in 2006. Brazil's coordinating CNCP was created in 2004, and may be substantially reorganized in 2010. India is in the midst of major experiment with coalition building among its stakeholders and police forces.

All of these coordinating agencies work closely with industry groups, and effectively allow substantial industry direction of efforts. The industry groups, for their part, coordinate research, policy positions, and activism across the different national and international venues in which they work, as well as with each other through higher-level coordinating bodies like the IIPA. International organizations such as WIPO also provide connective tissue—both top down in the form of treaties, and bottom-up via technical training for lawyers, judges, customs officers, and other actors in the enforcement business. Money flows across these networks as international industry groups subsidize their local counterparts and enforcement campaigns, and in return secure licensing deals and other concessions from local institutions. The result is dense 'networked governance,' to use Peter Drahos' phrase, in which relevant policymaking and jurisdiction are spread across overlapping institutions and actor networks.

This diffusion of the enforcement effort into public agencies is a primary goal of industry activism—and in particular of the Pro-IP Act. The major industry groups have worked consistently to expand public investment in enforcement and to increase private participation in public policing activities. Public-private partnerships on enforcement are now ubiquitous inside and outside the US, and structure and direct enforcement at every stage, from international policy formation such as the ACTA agreement to local enforcement, in which industry representatives play primary roles in investigations, evidence collection, and often raids.

Closer public-private coordination is almost always accompanied by industry calls for expanded police powers and wider application of criminal law to copyright infringement. IIPA has a list of standard demands for reshaping law enforcement around the needs of copyright enforcement: ‘ex officio’ police powers, which empower police to act directly without a complaint; ‘ex audito parte’ hearings, which dispense with requirements to have the defendant present in judicial procedures; ‘ex parte’ searches, which empower industry to conduct raids with lower police or judicial oversight; the application of anti-organized crime statutes (modeled on US RICO laws) to commercial infringement; dedicated IP courts; longer prison sentences, higher fines, and diminished evidentiary requirements—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.²

Some of these measures are responses to the inefficiency of civil procedures in India, Russia, Mexico, and many other countries, which make infringement lawsuits cumbersome. Nonetheless, expanded police power and diminished judicial safeguards raise obvious problems and 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, such as in Mexico and Brazil. Private management of public enforcement raises similar concerns about accountability, fairness, and due process.

What we have, at present, is a confiscation regime

Despite nearly a decade of legal streamlining and training of police and judges, successful convictions for piracy are infrequent and penalties are often low or suspended altogether. The main dissuasive tool of enforcement, consequently, is the raid. Thousands of raids are carried out each year in the large middle-income countries, with optical disk vendors and suspected software-infringing businesses topping the list of targets. Although no overall numbers are available, individual enforcement organizations track and occasionally report national numbers, allowing a rough picture of the scale of these operations and the ratio of raids to arrests and convictions. The Mexican Association for the Protection of Film and Music, for example, initiated 3170 raids in 2008, resulting in 120 arrests and 7 convictions. During Russia’s major crackdown in 2007, the Russian Anti Piracy Organization (RAPO) reported 29,670 raids and searches of suspected optical disk pirates, generating 73 criminal cases and an unspecified number of convictions. The Russian BSA, in the same year, initiated 589 raids on local businesses for ‘end-user infringement’, obtaining convictions in 83 cases. The Brazilian Associação Anti-pirateria de Cinema e Musica (APCM) reported 3,942 raids in 2008, leading to 195 convictions, most of which resulted in suspended sentences.

IIPA reports routinely complain about the lack of follow through in these operations, which result in a great many confiscations but very few subsequent arrests, prosecutions, or convictions. But the consistency of these results is striking and suggests that it is a feature, not a defect, of the ramp up of enforcement efforts. Inevitably, raids can be scaled up much more easily than judicial due process,

² In Brazil, informants described the last two points as the highest priorities for enforcement organizations—above even 3-strikes legislation for Internet-based infringement. The enforcement benefits of three-strikes are hypothetical. The storage costs incurred under current law are concrete.

leading police and industry representatives to rely on the fastest, most summary procedures under their control. The prominence of trivial-sounding disputes over obligations to pay for the storage of confiscated goods becomes clearer in this context.

The effects of raids can be devastating to targeted businesses, and the opportunities for due process in cases of confiscation are predictably very limited. Stock or computers can be impounded for weeks or months while investigations play out, effectively shutting down businesses for the duration. Because licit software and disks are hard to distinguish from illicit or unlicensed versions, the range of goods confiscated during raids is often indiscriminate, often leading to destruction or loss of legitimate property. This is especially problematic in contexts where artists or promoters make extensive use of informal channels for the distribution of licit goods, such as promotional CDs or DVDs.

In countries where the costs of raids have fallen on politically-well-connected domestic groups—Russian businesses and Mexican street vendors, for example—enforcement efforts have met with political resistance. When the major Russian enforcement push in 2006 was scaled back in 2007, several sources cited the role of local business lobbies who felt harassed by the increase in raids. The relationships between Mexican street vending organizations and police are also marked by negotiated truces that reflect the integration of these organizations into the political system. Raid-based enforcement is inherently fragile, and subject of a political calculus that weighs external pressure from USTR and multinational groups against internal pressure from domestic business constituencies.

Selective enforcement

Enforcement is, at all points, a selective practice that picks and chooses targets from the wider 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 between businesses.

The counterpart to raid-based enforcement is the push for spectacular punishments in the handful of cases that result in convictions. This punishment phase is often treated as an occasion for public dissuasion, rather than proportional justice. The fines handed out in the US to Joel Tennenbaum and Jamie Thomas for trivially common acts of file sharing— \$1.92 million fine on Jammie Thomas-Rasset for sharing 24 songs and a \$675,000 fine on Joel Tennenbaum for 30 songs—exemplify this occasionally crushing side of enforcement and demonstrated the RIAA’s willingness to extend it beyond the pirate vendors and producers traditionally targeted for commercial-scale penalties.³ Many countries have their examples of spectacular punishment set against wider inability to secure convictions in meaningful numbers. Because such cases are cheap compared to additional policing and routinely praised by IIPA as

³ The US Department of Justice went on record that the Thomas-Rasset penalty was appropriate, indicating that such damages against individuals were intended in the 1999 Digital Theft Deterrence and Copyright Damages Improvement Act. In early 2010, the Thomas-Rasset fine was reduced by a judge to \$54,000, and Thomas is continuing to contest the matter. Samuelson and Wheatland (2009) have analyzed the increasingly arbitrary and extreme character of statutory damages in the US, noting that current the range of damages runs from \$200 (in the case of ‘innocent’ infringement) to \$150,000 per work infringed.

signs of good faith, they are generally tolerated by governments looking for ways to avoid USTR attention.

Predictably, the role of private companies in directing public enforcement resources also leads to problems—initially by creating competition for those 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 explicit cases of racketeering on the part of business chains to the more common and legal practices of BSA and other enforcement actors who can raid or audit firms with virtual certainty that their targets are guilty of some infraction (if only of BSA’s own interpretation of licensing compliance standards). In the software arena, it is widely assumed that such enforcement falls most heavily on small businesses, which have less sophisticated IT management, low political or market influence, and—above all—less capacity to contest legal threats.

The most pervasive forms of selective enforcement, however, are the dedicated enforcement efforts for particular products or brands, which convey de facto advantages over competing goods. Dedicated enforcement campaigns are relatively common for major domestic film releases such as the *The Irony of Fate 2* in Russia, *Tsotsi* in South Africa, *Tropa de Elite* in Brazil, and *Lagaan* in India—usually in an effort to block or suppress the circulation of copies during the initial release window.

Naturally, not all companies enjoy equal access to these 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, shaped by 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, and large businesses, and in the eventual negotiation of ‘retroactive’ licensing agreements that lock those institutions into the Microsoft software ecology.

Anecdotally, however, our work suggests that domestic companies and artists are often more effective at mobilizing state resources than international firms—even when representing products tied into international networks of investment and distribution, such as most music and high-end domestic film production outside India. 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 NBC/Universal licenses. These preferences translate into a wide variety of formal efforts and informal norms to protect goods with strong local identities—often in ways that capitalize on protectionist sentiment among consumers. Deals between pirate vendors and authorities around local content have been common in India, for example, where regional cinema, especially, enjoys preferential treatment from police. Street-level enforcement efforts have been organized by film and recording artists in India and South Africa—often focusing the piracy of their own materials, and regularly shading into vigilantism. In Russia, 1C, a producer of accounting software and distributor of foreign titles, accounts for 126 of the 207 criminal indictments for software piracy between 2002 and 2008. Microsoft was second with 21.

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 IFPI began to raise concerns about the transborder smuggling of pirated CDs (IFPI 2001). Claims of connections between piracy and terrorism are a more recent addition to the discourse. In 2003, 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” (Ronald Noble 2003). In 2008, 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, MPA-funded report on organized crime and terrorist linkages (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 inevitably 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 systemic links between media piracy and more serious forms of organized crime, much less terrorism, in any of our country studies.* What explains this finding?

Invariably, the rationale offered for syndicate and terrorist group 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”—an implausible claim that has circulated in industry literature since at least 2004.⁴ We think the record is clear that piracy *was* a highly profitable business through the early 2000s, when optical disk production facilities were expensive, industrial in scale, and relatively scarce. The concentration of productive capacity in a few countries created an international pirate economy in which some countries emerged as exporters of optical disks (e.g., Malaysia, Bulgaria, or 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 that this structure of piracy persists in regional trade networks connecting South Asia, the Middle East, South Africa and East Asia. But it is also clear that such networks are waning—driven to unprofitability by expanded local production and free digital distribution. We see no evidence that piracy is still a high-margin business.

⁴ (Treverton, et al. 2009:xii). The original version of this statement appears to come from in a UK-based Federation Against Copyright Theft (FACT) report in 2004, and offered the more precise claim that a kilogram of pirated DVDs was worth more than a kilogram of hashish. This claim has been challenged before (Anonymous 2006), but to update and reiterate the point: according to US Customs authorities, a kilogram of hashish in New York sells for around about \$30,000. A kilogram of pirated DVDs (amounting to 60-65 disks averaging 16 grams each) has a street value of about \$300 in NY, at the going rate of \$5 per DVD.

These trends in pirate production have been in play since the early 2000s. Production costs and profit margins on optical disks have plummeted in the period, leading to a collapse in prices. In 2002, quality DVDs cost five dollars or more on the street. In 2009, they are under a dollar in many parts of the world. Burners and blank disks are now commodity items, and have led to greatly expanded local production, the displacement of smuggling, and—in many countries—a reorganization of production around informal, small-scale, and often family-based enterprise. 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 disk piracy in the high-income countries and appears poised to do the same 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 organized criminal involvement. Yet, to the best of our knowledge, none of the industry or law enforcement statements about these alleged 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.’ Counterfeit cigarettes, medicines, consumer products, machine parts, and other goods are indisputably high-margin products. Transborder smuggling creates numerous opportunities for criminal groups to organize or tax the transit of these goods. Tobacco smuggling in particular—incentivized by high European and US taxes on cigarettes and abetted by major tobacco companies—has become an important revenue source for a remarkably diverse range of terrorist groups, including the Taliban, the Columbian FARC, the PKK, and others (Willson 2009).

Without this narrative, two decades of media piracy can be flattened into an intuitive but inaccurate history of criminal enterprise: decades-old stories can be recycled as proof of terrorist connections; anecdotes can stand in as evidence of wider systemic connections; and the threshold for what counts as organized crime can be set very low. The RAND study, which reprises and builds on earlier IFPI and Interpol reporting, is constructed around such evidentiary 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 our Mexico chapter—are mischaracterized as criminal gangs connected with the drug trade. Organized piracy in Russia clearly benefits from state protection and sponsorship, but characterizing this as organized crime is a misnomer.

The US record isn’t more convincing in this regard. Jeffrey McIlwain examined the Department of Justice’s 105 IP-related prosecutions between 2000 and 2004. Only 49 of these alleged that the defendant operated within larger, organized networks. Most of these were ‘warez’ distribution groups for pirated software—hacker communities that are explicitly and often fiercely non-commercial in orientation. In the end, the author 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, surely a stronger evidentiary record could be produced.

The BSA position is often described as a claim of one-to-one correspondence because pirated software is valued at retail prices in its studies. The reality is somewhat more complicated, and—according to

older BSA literature—reflects an assumption that, although less piracy would not *directly* produce a 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. This is the conventional assumption for most previously published piracy studies” (IDC 2003). IDC presents no evidence for this equivalence, and it strikes us as highly implausible. Software is indeed a unique commodity—not least because of the availability of high-quality ‘free’ open source alternatives in many categories that would come into play if pirated software were less easily available. Given the growth in open source software markets, this is much more true today than in 2003.

Does Education Work?

Education is a mainstay of antipiracy efforts, from school-based copyright curricula to strategic communications efforts that keep industry reports, raids, and other messaging visible in the print and broadcast media.⁵ In enforcement literature, education usually refers to efforts to foster ‘respect’ for intellectual property or—alternatively—to increase awareness of the harms attributed to it, from crime, to terrorism, to virus and malware infestations in computers.

Industry organizations bring substantial resources to bear on these forms of message management. Several of our country studies document the extent to which copyright industry messaging dominates print and broadcast coverage of piracy and file sharing. Our South African team documented some 800 print and broadcast stories linked to enforcement efforts over a 4-year period, in a country with 3 major media markets. This consistency is in striking contrast to online venues, which harbor a much wider array of positions and discussions that more closely reflect, in our view, the diversity of consumer attitudes. The shared interest in enforcement among major media companies and the investment by industry PR staff in packaging antipiracy narratives for overstretched newsrooms very likely explains much of this alignment.

What do these educational efforts achieve? Our work in developing markets suggests: very little. Our inquiries find that (1) piracy is often regarded with ambivalence by consumers; (2) pragmatic considerations of price and availability nearly always win out over such qualms; and (3) 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 negotiations in which notions of fraud or deception—often borrowed from anti-counterfeiting discourse—generally don’t signify. The price gap between licit and pirated media provides a clear signal of the origins of goods.

⁵ Many of these efforts target children and students, such as BSA’s “Define the Line” campaign and the ESA’s “Join the © Team” in the US; or the “Children Against Piracy” and “Change Starts with an Idea... It Can be Yours” campaigns in Mexico—to cite a few examples among many. Enforcement efforts have also produced a subgenre of comics, ranging from the MPA’s “Escape from Terror Byte City” (2009) to the Canadian “Captain Copyright” (2007).

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 of copyrighted material. Clarifying for students that file sharing of copyrighted music is piracy seems entirely possible, 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, in our view, with the more extensive surveying of public opinion by Pew in the US, BPI in the UK, and other polling firms, which have shown high and remarkably stable levels of acceptance of file sharing and other forms of online infringement in the decade since Napster (Rainie, Fox, and Lenhart 2000; Madden 2009). In the contexts in which we have worked, we can say with some certainty 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 antipiracy 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 the context of these potentially high domestic political costs.

What is Consumption?

General accounts of media consumption have lost much of their coherence as digital technologies blur once distinct roles of production, distribution, and consumption. Much of the attention to this issue has focused on the plummeting costs of producing and distributing media, and on the resulting democratization of media production. We see this clearly at work in the emergence of new production and distribution chains at the low end of media markets. With a focus on piracy and recorded media, however, our studies also track the decline of an iconic figure of media consumption: the collector, whose relationship to media is defined by carefully-managed personal acquisition. This notional consumer still organizes a large part of the cultural field and a large share of the business models and supply chains for audiovisual media.

Our work documents a wide variety of practices of collecting and sharing of recorded media. Within this field, we find the personal collector occupying a shrinking middle ground defined by income effects and legacy cultural practices. Among privileged, technically-literate consumers, the size of personal media libraries is becoming so large as to disconnect recorded media from traditional notions of collecting—or even strong assumptions of intentionality in its acquisition. A 2009 survey of 1800 young people in the UK found that the average digital library contained 8000 songs, with 1800 on the average iPod (Bahanovich and Collopy 2009). Most of these songs—up to 2/3 in one recent study—have never been listened to (Lamer 2006). Music and video are increasingly shared by the gigabyte or even terabyte—sizes that diminish consumer’s abilities to organize or even grasp the full extent of personal media libraries. Community libraries, such as those constituted through many invitation-only torrent

sites, represent another version of this reformulation of ownership norms. One effect of this growth is that consumer surveys are increasingly ill-adapted to mapping these practices. 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 disks, packaging, and other elements of added production value, 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 population of middle and low-income countries. Original goods continue to play a variety of status roles in these contexts, as signals of wealth or—as our Russia study documents—as the polite form for a gift.⁶ But even in the short span of years covered in this study, the transformation of these practices is visible and striking. The relevant timeline for the shift toward massive personal digital libraries 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 earlier diffusion of the audiocassette and cassette player—the profoundly democratizing and piracy-enabling media technologies of the 1980s (Manuel 1993). The much larger current wave of media access is built on the proliferation of a cheap VCD and DVD infrastructure in the last 7-8 years, including multiformat players, computers, burners, and disks, and driven largely by pirated media. Consumer practices at this level are also 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.

Neither the high income nor the low income versions of this shift has much currency in enforcement debates, which continue to be shaped, in our view, by a nostalgic view of the consumer as collector—of people making deliberate choices to purchase, or pirate, specific products for personal use. Much of our work suggests that this is a transitional formation in digital culture, and indeed one being pushed into faster obsolescence by the newer legal services of the content companies themselves.

⁶ See also Wang (2003) on these distinctions.

