how media studies can profit instead from the accumulated wisdom of four decades of theorizing in an adjacent social science field. As media scholars, we have inherited a largely unused set of tools for thinking through the relationship between formal and informal economies. Many of these insights are directly relevant to current debates and problems in our fields. We feel it is time for media researchers to start engaging with the extraordinary conceptual and empirical resources generated around the problem of informality, so this book offers some concepts and ideas to get the discussion started. We hope you enjoy the experiment.

1

Formal and Informal Media

Television is a strongly regulated and centralized medium that has long been crucial to modernizing projects. From the early state control of television broadcasting before the Second World War, to technological developments drawing on wartime research and development, and the medium's mass appeal in postwar consumer economies, television was born in a period of remarkable formality. Today, many of these formal features are still in play. Broadcasting is a clearly defined global business with high barriers to entry and a limited pool of competitors. It attracts considerable scrutiny from state regulators, civil society groups, unions, business competitors and consumers. In most nations, broadcasters adhere to strict conditions regarding content and advertising and pay licence fees to the government. States control their radio spectrum and, in many cases, fund, or otherwise expect public broadcasters to fulfil, cultural policy objectives. Commercial television is the province of large, consolidated and diversified companies like Comcast and BSkyB (controlled by News Corp). These are among the most profitable, stable and regulated media companies in the world.

But this is not the end of the story. Throughout the television sector there is a wide variety of informal actors, from unlicensed broadcasters to pay-per-view pirates and grey hardware vendors. Anyone who has ever downloaded *Breaking Bad*, purchased a smart card from a stranger or leeched off a neighbour's cable connection has, wittingly or not, encountered the informal TV economy. Sometimes this informal economy dwarfs its legal counterpart, effectively becoming the norm. India is famous for its intricate system of off-the-books cable

connections, run by local entrepreneurs – cable *wallahs* – who provide cheap, customized programming to their neighbourhoods. Pirate DVDs provide a bounty of content, and homes are connected using intricate networks of DIY wiring. Revenues – if declared at all – are underreported, and retransmitted content is probably unlicensed. Nonetheless, this system is massive and ubiquitous. More Indians get their TV from a local cable *wallah* than directly from any corporation. Nobody really knows how many viewers the informal cable economy serves in India; nor do we know how many programmers, card vendors, installers and repairers it employs. But the numbers are likely to be higher than the equivalent numbers for the legal cable business. Ravi Sundaram describes this economy as a form of 'pirate modernity': 'private enterprise without classic capitalists, or classic workers, or legal industrial estates, without brands or legal monetary rents to the state' (2009: 104).

It is perhaps tempting to think of these two worlds – the formal economy of corporate broadcasting and the informal, off-the-books TV economy – as existing in parallel, like train tracks that never cross, but this is not the case. Formal and informal economies are connected by exchanges of personnel, ideas, content and capital (we call these *interactions*). If we look back at the history of television we see that many formal companies started out as signal pirates before transforming themselves into legitimate operators, some even changing the rules of the game to suit themselves. Other formal companies rely on informal agents for market intelligence, technological innovation or free labour. Conversely, pirates depend on formal businesses for most of their content. Many also aspire to a career in the legitimate media sector, and frequently collaborate with established players when it is mutually beneficial to do so.

Understanding informality and formality in this way – as connected and co-dependent – invites us to view media in a new light. Too often, media industry change is presented as a singular trajectory: according to one reading, a one-way process of consolidation, corporatization and rationalization; according to another, ongoing fragmentation and disintermediation. In what follows, we offer a different kind of story about media industry history, which emphasizes the way formal and informal actors, from the largest corporations to the fly-by-night sole traders, are intertwined and interacting. This chapter introduces some analytic tools that can usefully interpret these interactions. Beginning with a simple binary (formal/informal) we build up to a dynamic model. Most examples are from one particular area of the media landscape, television – a relatively formal industry with enduring informal dimensions. Through these examples

we tell a more general story about how formal and informal activities interact as a medium emerges, establishes and adapts.

From Binary to Spectrum

Analysing interactions between formal and informal media worlds requires us to think holistically about the media environment. A useful starting point is to ensure that our horizon is as inclusive as is possible, that it includes both the multinational broadcasters and the pirates. Most models for media industry analysis restrict their focus to the formal players, and if the informals are represented at all, they are merely noise around the regular system. We prefer to think about the informal economy as already integrated into the wider landscape, and to view media industries as encompassing both formal and informal sectors from the outset.

To represent this diversity, imagine a simple one-dimensional spectrum with formal systems located at one end and informal systems at the other (see Figure 1.1). Rather than a binary division, this schematic views informality/formality as a continuous line. Differences between the systems are variances of degree rather than fundamental oppositions. The line that connects the cable pirates and the CEOs is continuous, and – as we will see later – circuitous. From this starting point, we can begin to see systems, entities, actors and economies that combine formal and informal elements. Our 'mid-spectrum' example, YouTube, has both elements. The platform functions as a promotional vehicle for professional producers and a distribution system for unauthorized uploads and amateur content. The middle ground has not been easy territory: in fact, YouTube's position in this media landscape has been hotly contested. Broadcasters, producers and distributors have all sued YouTube at various points, challenging the legal status of this open, video sharing platform. YouTube survives because it has won most of these battles, but many other internet-based media services have failed. The attributes that distinguish the formal and the informal are often the result of such

INFORMAL		FORMAL
Bit Torrent		BBC
The Pirate Bay		CBS
Cable wallahs	YouTube	Canal-Plus
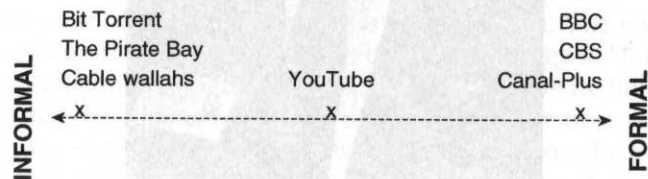
Figure 1.1: a spectrum of formality

conflicts. When we look closely at the establishment of boundaries, through legal change, regulatory realignment, corporate fiat or other forms of official power, we find that the boundary between formal and informal actors – between pirates and legitimate broadcasters, for example – often turns out to be movable and permeable.

The history of cable television in the United States provides a clear example of the contingency of these boundaries. Early cable companies like Bob Magness's Tele-Communications Incorporated (TCI) were essentially free-riders: they rebroadcast the free-to-air signals of the national TV networks (Robichaux 2003). Entrepreneurs prospered by picking out neighbourhoods where over-the-air signals were poor, then installed basic cabling and energetically signed up TV-deprived residents for low monthly payments. They did not have permission from broadcasters to use their signals in this way. From the point of view of the major networks, this was piracy or 'signal theft'. Carriage disputes of this kind remain endemic in multi-platform television systems. Since 1992, US law has required 'transmission consent', formalizing a system of payments back to the networks. A similar conflict – with a different outcome – has marked the emergence of internet streaming services. Former Paramount and Fox executive Barry Diller backed a company called Aereo, a 'loophole

[handwritten margin note: movable, permeable boundary between in/formal]

Bob Magness. Image: Denver Post via Getty Images (© 1985)
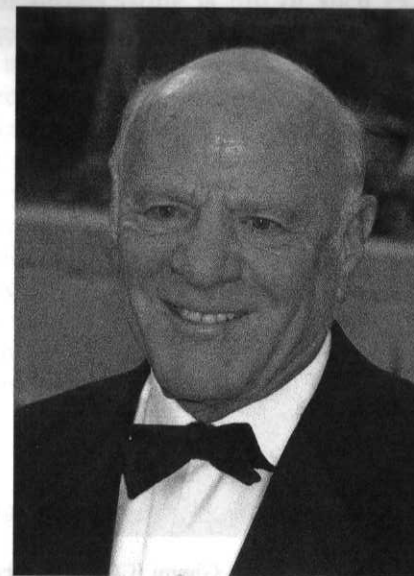
Barry Diller. Image: David Shankbone (CC BY licence, 2009)

start-up' that began by allowing its subscribers to watch live broadcast TV over the internet. Aereo's service was useful for cable 'cord-cutters' and for people who live in areas with poor reception or have no free-to-air antenna, but the legality of Aereo's business model was always uncertain. Aereo did not pay networks for their signals; it presented itself as a personal video recording service, using 'farms' of thousands of tiny antennas (one per subscriber), capturing broadcast signals that were then streamed to the devices of individual customers. Predictably, the networks sued Aereo for copyright violation. Aereo won the first round, but a Supreme Court ruling in 2014 disagreed and spelt the end of Aereo's operations.

This story of regulatory uncertainty and mobile legal boundaries is common to many parts of the world. Throughout Mediterranean Europe, broadcasting was an extra-legal activity for decades. Greece had a tightly state-controlled TV environment until 1987 when it underwent a rapid and messy process of deregulation. The result was a proliferation of local operations run by aspiring moguls. Unlicensed stations sprang up overnight. These operated as legitimate businesses, screening advertisements for clients and creating their own programming, but were technically illegal because they had no official authorization to broadcast. Around 50 per cent of the movies they screened may also have been pirated (USTR 2001). Italy is another interesting

Silvio Berlusconi. Image: Roberto Gimmi (CC BY-SA licence, 2006)

case. Since the 1970s, Italy's loose system of television licensing meant the distinction between legal and illegal media business was uncertain. Alongside the state-owned national broadcaster RAI, private broadcasters were permitted to broadcast their signals locally. This right to broadcast was allocated on a first-come, first-served basis, resulting in a flood of entrants into the market; by 1985 Italy had more than 1300 TV stations – the highest number per capita in the world (Noam 1987; Balbi and Prario 2010). Silvio Berlusconi built a huge media empire in the cracks between Italy's chaotic broadcast laws. Shuttling videotapes around the country, he stitched together a national advertising system and openly flouted the ban on country-wide broadcasting. His company Mediaset would become one of Europe's most powerful conglomerates, with operations in every corner of Italy and throughout Eastern and Western Europe. RAI's monopoly was effectively broken. In 1990 Italy's media laws were completely rewritten to favour Mediaset, meaning that a RAI/Mediaset duopoly was effectively authorized by the state. Built outside the law, Berlusconi's media business was given the imprimatur of the Italian parliament, and an informal empire was formalized. As Noam notes, Italy's 'transformation from state-run to privately owned TV is not the result of government policy, but was caused by the entrepreneurial initiatives of broadcast "pirates" whose efforts were later sanctioned by the nation's courts' (1987: 19).

The history of broadcasting is full of such examples, where the lines between legal operators and pirates are hard to make out. The purpose here is not to question the reputations of those businesses, but to emphasize the contingent boundary between the formal and the informal. Many private TV stations were informal because the wider broadcasting industry and culture were as well. What is currently formal may not always have been that way. Informality can be typical rather than exceptional, reflecting a nation's broader political economy, technological development and regulatory environment. In these circumstances, media business occurs in a regulatory flux where rules have yet to solidify. When they do, those in a position of power become the winners in a metaphorical game of musical chairs: they emerge victorious, able to reinvent themselves as legitimate captains of industry.

Disaggregating the Spectrum

So far we have introduced a spectrum of formality, demonstrating that there are many shades of grey between the poles rather than two neat categories. We also showed how the boundaries that differentiate formal from informal are historically contingent; they can be redrawn with changes in law and policy, as was the case in Italy. The informal economy in this sense can be pre-legal or extra-legal as well as non-legal or illegal. In the words of criminologist Stuart Henry, informality is 'integrally bound up with the process whereby law is constructed and maintained' (1983: 32). In analysing relations between formal and informal media economies, the next step we need to make is to disaggregate formality and informality into their constituent variables.

A starting point is to note the many informal practices that exist within formal organizations. These can take many different shapes. Sometimes strategic informalities are required to keep things running smoothly: workarounds are used when formal processes prove to be cumbersome or ineffective. Television networks often broadcast amateur footage of an unfolding emergency, for instance, whether or not a licence to do so has been granted. Rough-and-ready 'rule of thumb' agreements – as well as copyright law provisions in certain nations – enable TV networks to use material from other broadcasters. These arrangements are often vital to the effective operation of an industry. Other informalities are about harnessing the spontaneous and flexible aspects of enterprise, to enhance the more codified aspects of a business. Management textbooks dispense advice on how to

harnessing productive qualities of informality

harness the productive qualities of informality in the workplace, suggesting everything from paintball tournaments to casual Fridays. Whole areas of contemporary management are about creating strategies for eliciting *the right kinds of informality* from people. Finally, there are instances of informal practices within major companies that verge on the corrupt or the criminal. Mediaset is a fascinating example: it was Italy's largest and most powerful media company, with thousands of employees and enormous revenues (this was no off-the-books business), but it was also rife with questionable practices, including pay-offs to politicians, bank accounts in the Caribbean, and close links with the mafia (Stille 2006).

Corruption

Rupert Murdoch's pay TV businesses provide another intriguing example. According to the financial journalist Neil Chenoweth (2012), who spent years researching the story, News Corporation's pay TV wing pushed the boundaries of the law. Chenoweth's revelations refer to NDS, a subsidiary of News Corporation that makes conditional access systems (the complex anti-piracy technologies that prevent consumers from accessing TV signals without payment). In this industry, the integrity of the system is everything: the pay TV business model depends entirely on restricting access to the signal to paying customers. If a conditional access system is hacked, unlocking keys can be posted online and counterfeit cards can easily be manufactured and sold, with potentially drastic losses to the broadcasters involved. Chenoweth's account suggests NDS used hackers to facilitate the widespread distribution of keys and counterfeit cards for use on competitors' systems. The alleged aim was to cripple News Corp's rivals in the pay TV and conditional access industries, thus boosting the market value of NDS and other News Corp businesses. The suggestion is that senior staff at NDS set up 'honeypot' websites to trick signal pirates into revealing their secrets, put friendly hackers on the payroll and threw others to the wolves, and used a shadowy division called Operational Security, run by former British cops and Israeli spies, to conduct surveillance, as part of 'a global policy of industrial espionage by a major wing of Rupert Murdoch's empire' (Chenoweth 2012: xiv).

Formal activities within informal economy

fun-subbing

Just as informality exists within corporate media, formal activities also occur within the informal economy. It is rare to find systems that are informal in every aspect. Only the most small-scale media worlds fully resist the trappings of formality; most others have at least some organized, regulated aspects. Online systems for translating TV programs offer a useful example here. The practice of fansubbing (the production and distribution of homemade subtitles, which are screened alongside shared video files) has grown exponentially in recent years, as open-source subtitle formats like SubRip (SRT) proliferate. Networks of multilingual volunteers, motivated by the

Subscene, a fansub sharing site

cultural capital that comes with being a successful fansubber, spend hours translating popular TV shows from one language into another. One can now easily download Turkish, Farsi, Mandarin or Bahasa subtitles to popular US shows within days or even hours of the programme's initial broadcast. Fansub networks are especially dynamic and efficient in East Asia, where fan-made subtitles for popular Korean, Chinese and Japanese dramas appear almost instantaneously. Websites such as Subscene, OpenSubtitles and Shooter (a popular site for Chinese subs) allow these subtitles to be easily shared between producers and fans.

As experts note (Ito 2012; Hu 2013; Mendes Moreira de Sa 2013), fansub crews are mostly informal: they exist outside the media industries in a world of ephemeral internet forums and pseudonymous identities; they infringe on the intellectual property rights of producers; they are unpaid amateurs (mostly students) without translation training. But the crews also have important formal aspects. Fansubbers are typically subject to sophisticated forms of self-regulation, driven by competition between subbing groups. Work schedules are tightly organized and rationalized, with chunks of a TV programme divvied up among the volunteers by a senior group member. Those who fail to deliver their allocated dialogue on time find themselves ejected from the group. Group membership is strictly monitored via a gatekeeping system designed to weed out inferior or inefficient creators of subtitles.

Recent developments in fansub media show an ever more complex integration between the formal and the informal. The multilingual streaming site Viki, founded by Korean students at Harvard and Stanford in 2007, is a case in point (Dwyer 2013). Viki began as an

unlicensed fansub repository that used an innovative system to divide and allocate chunks of programming among volunteers. The site now has more than 100,000 volunteer subbers on its books, working in a vast array of languages. It has shed its amateur skin and become a fully fledged media enterprise, with offices in Singapore and San Francisco and venture capital from Indian and US investors. It was sold in 2013 to Japanese e-commerce giant Rakuten for an estimated $200 million (Swisher 2013). Viki's current business model involves legal licensing of content from broadcasters – mostly anime and Asian TV dramas from East Asian TV networks – and using its army of volunteers to translate the content into various languages, then streaming the subbed content to international audiences. Revenue sources include in-programme advertising, premium subscriptions and IP licensing (several Korean TV networks, impressed with the quality of translation, have purchased the fan-produced Viki subs for their own DVD releases). The end result is a slick, Hulu-like service, built on an informal labour force, which – controversially – does not receive a share of the revenues.

There are a few implications here for our model. The examples above show a mix of the formal and the informal: fansubbers have tightly organized labour practices, but weak adherence to copyright law; major media companies are subject to formal financial regulation, but regularly employ informal practices on a day-to-day basis (use of tax havens, for example, or secret executive payouts). Hence, we have an array of possible criteria against which formality or informality can be judged: we can look at a company's financial affairs, their workplace practices, their size and scale, or the degree of regulation. Using some of the components relevant to the fansubbing example, the schematic shown in Figure 1.2 visualizes these possible criteria as well as the divergent results along each axis.
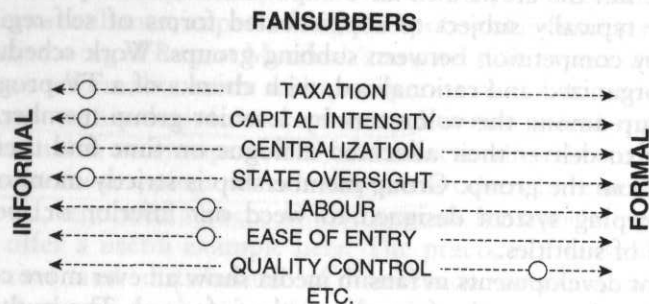
FANSUBBERS

INFORMAL ← — — — — — — — — — — — — — — — → FORMAL

- ←○ ———————— TAXATION ————————→
- ←○ ———————— CAPITAL INTENSITY ————————→
- ←○ ———————— CENTRALIZATION ————————→
- ←○ ———————— STATE OVERSIGHT ————————→
- ← ———————— LABOUR ————————→
- ← ———————— EASE OF ENTRY ————————→
- ← ———————— QUALITY CONTROL ——○———→
- ETC.

Figure 1.2: Disaggregating the spectrum

Breaking down the spectrum like this shows how constituent variables of media systems take up different positions along the spectrum simultaneously, even though they may cluster towards one end. So, while fansub groups will be positioned towards the informal end according to most criteria, many of the top groups find themselves closer to the centre when their labour practices, or the degree of organization and rationalization in the way they work, are considered. If we were to compare the fansubbers with another entity or a formal company, we might start to see unlikely connections in terms of where the dots sit along the spectrum. In other words, disaggregating the formal and informal in this way reveals structural similarities between what otherwise appear to be unconnected and incomparable media systems. Borrowing an idea from Bruno Latour's (1991) revisionist account of the modernist project, we might say that even the most established media companies *have never been entirely formal*; instead, they are a collection of activities, strategies and techniques that range across the spectrum, perhaps clustering at one end, but not very ontologically different from their informal counterparts.

Time and Transformation

Media economies are dynamic rather than static. They change over time, and so does the relation between their formal and informal elements. To account for these changes, we need to add a temporal dimension to our spectrum.

One direction of change is *formalization*, in which media systems become progressively more rationalized, consolidated and financially transparent. This can happen as a result of increased state intervention in a particular industry, which finds itself dragged into the light of regulation and accountability. Alternatively, it can occur when formerly small-scale media concerns become integrated into larger-scale structures. Specific financial arrangements, such as disclosure and reporting requirements for publicly listed companies, have a putatively formalizing effect. Particular technologies may also have formalizing properties when they become central to media businesses – for example, advanced data systems (people-meters, point-of-sale tracking). The aspiration here is towards transparency and data analysis, in contrast to informality's characteristic opacity.

Deformalization – when media activities become increasingly less transparent, centralized or governed – is also common. Regulation may be withdrawn or suspended, opening up a space for informal activity. It may overreach, with the same result; this can happen when
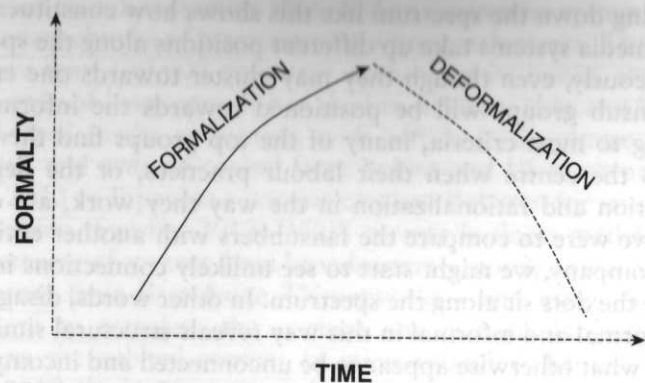
Figure 1.3: the spectrum over time

states lack the power to enforce the existing laws, or when technological change means that official systems of regulation play a catch-up game with new fast-moving technologies and the practices of early adopters. Media producers or distributors may even find it expedient to relocate their activities from the formal to the informal zone, participating in a voluntary flight from formality. These and other kinds of deformalization occur in different kinds of media systems, across digital and analogue platforms, and in diverse spaces and historical periods.

Neither formalization nor deformalization are teleological processes, and neither one nor the other is dominant. A sense of history is important here. Any claim about degrees of change will depend on the timeframe selected for comparison. Depending on when we start counting, the television industry may appear to be either formalizing or deformalizing. For example, a deformalization narrative seems appropriate when looking at television in the period from around 2002 to the present: there have been massive changes to distribution structures, disruptive technological innovations, the emergence of a new breed of nimble 'post-TV' companies, failing attempts at global market segmentation, and other changes that have had the effect of making the system less organized and settled (though the power of many big players has not been substantially weakened). In contrast, if we look at the industry from 2000 to 2002, when the Time Warner-AOL merger was under way, a more centralized and top-heavy future for television, characterized by 'a wave of massive mergers' (McChesney 2013: 110), seemed plausible. As we have seen in this chapter, different variables within an industry may be subject to dynamic formalization or deformalization, so the story can be told

at a more fine-grained level as well. Consumption of TV content has been marked in recent years by deformalization, due to digital piracy. Infrastructure is a different story: the ownership of cable infrastructure in many nations, and its convergence with internet industries, is dominated by large-scale corporate structures and alliances. TV production has its own peculiar economy, marked by a dispersed array of small production companies coexisting with larger, more regularized outfits (Scott 2004b; Curtin 2003).

Given these caveats – neither direction of change dominates, neither is inevitable, and neither is infinite – how do time and transformation fit into our analytical model? Thinking about change over time requires clarity about degrees of formality, about the natural or necessary presence of formal or informal traits and about now versus then (Helmke and Levitsky 2012: 95). This emphasis on the contingencies of informality avoids the tendency to see informal systems as remnants of more organic societies, or as more truthful expressions of human creativity or freedom that exist outside history. Many informal systems are thoroughly modern in the sense that they take full advantage of – and are enabled by – changes in digital technology, patterns of economic integration and leading-edge consumer behaviours. Formal and informal media economies dance together under the sign of technological modernity.

Understanding the Interactions

So far, we have set out several ways to think of formality and informality not as two discrete and mutually exclusive categories, but as a series of spectrums and dynamic trends. The emphasis on continuities and blurry boundaries arises from a belief that media systems involve both formal and informal elements; that informality is present at many levels, both outside and within even the most regulated and rationalized environments. One must also take into account the temporal dimensions of media industry change. At any given point in time, and across longer periods, particular elements of media industries may become more or less formal. Informal and formal elements may work in harmony, or they may pull in opposite directions. The next logical step is to consider the *interactions* that govern these relations – how entities, actors and activities in the informal and formal economies connect.

In Keith Hart's work (2009), we find a model for the boundaries and behaviours that divide the formal from the informal. There is the division, bridged in Hart's account by money, between paid work and

domestic life. There are relations of content (the informal, unspecified 'workarounds' within formal organizations that we have already discussed); there is the negation of formality (breaking laws); and there is also the parallel coexistence of putatively residual, 'legacy' practices that may persist alongside formal models of regulation, as noted earlier. It is not hard to find instances of all these in the media, from the separations between media consumption in the workplace and the household, to certain kinds of piracy as a mode of negation, to the ethical norms and forms of shaming and exclusion that govern conduct in online communities such as the fansubbers.

Drawing on these typologies, we can identify three kinds of interaction that are particularly useful for the analysis of media industries. These three categories – *functions*, *effects* and *controls* – provide a way of thinking about the boundaries and linkages between formality and informality, across multiple dimensions. *Functions* are ways that informal elements get used within a formal media market. Functions do not of themselves change the boundaries of the formal and the informal. *Effects* describe what may happen to a particular media economy or to the broader ecosystem when informal elements are incorporated into formal systems over time. *Controls* are ways of managing, organizing or understanding informality. A few relevant examples of each interaction are set out in tables 1.1, 1.2 and 1.3. These reflect an illustrative sample of each phenomena, rather than a full taxonomy.

Functions are critically important because they show us that apparently different ways of doing things may in fact connect with each other. In other words, they reveal the enduring role of informal practices within formal systems. *Gap-filling* is perhaps the most obvious way in which informal activities are used in formal contexts: this is a kind of 'workaround' scenario, similar to Hart's (2009) notion of 'content'. This involves people using common sense and informal tactics to fix systemic problems. Some examples might be consumers sharing infrastructure, such as satellite dishes, or network employees adjusting their work schedules to suit project deadlines (staying late on a tight deadline then leaving early the next day).

Incubating is when skills and ideas developed in informal contexts are taken up in formal industries. Non-professional radio, film, theatre and musical performers are cherry-picked by established companies; start-up companies selling rights for new digital innovations are bought up by major broadcasters or media conglomerates, as a cheap means of R&D; professional content producers borrow ideas and styles from the street. In these ways, skills and concepts from the informal sector can enrich the formal.

Table 1.1   Functions: What Informal Activities Do in Formal Markets

Function	Definition	Example
Gap-filling	Informal 'workarounds' to solve practical or informational problems	Personal referral networks; rule-bending and 'practical sense'
Incubating	Growth in informal sector of skills, ideas, styles, processes that may move to formal sector	Community media organizations, amateur performance, backyard tech development
Outsourcing	Creating lower paid, more flexible labour markets outside institutional structures	Casual and freelance work, offshoring of low-value work
Taste-testing	Gauging consumer demand for a product or work outside established markets	Using informal media for market intelligence
Priming	Using informal practices to promote demand in formal markets	Viral promotions using social media
Educating	Educating consumers or businesses in the possibilities of new technologies and business methods	Crowdsourcing, social network-based messaging services, online shopping

Outsourcing (which overlaps with *incubation*) occurs when the formal sector acquires services or skills from the informal zone, or under informal conditions, because it is more efficient to do so than to rely on the usual models. Many freelance creatives in the media world work on an informal basis – compared to permanent staff, they are more flexible, paid on an output basis (resulting in fewer overheads) and can be dropped easily. Increasingly, crowdsourcing is used as a basis for efficiency-motivated outsourcing, as when users of social media platforms are called upon to contribute to branding and market research efforts for major corporations ('help design our new logo and win a $20 iTunes voucher'). The thorny ethical issues around these practices are discussed in detail in Chapter 3.

A related function is *taste-testing*. This is when formal media companies use the informal economy to measure the appetite for their products, or to assess the viability of new initiatives. The open architecture of the internet makes this kind of research easy: content

producers can study download patterns or fan activity as a way of gauging market demand. A number of companies, including Netflix and the Australian publisher/digital media company Fairfax, have publicly acknowledged monitoring the most downloaded shows on BitTorrent networks as a way of estimating the market for future productions. Netflix reportedly bought the rights to *Prison Break* on this basis (Kelion 2013).

Priming is another way for formal actors to exploit informal activity: this is when the generativity of the informal economy is harnessed for promotional purposes. Jenkins, Ford and Green (2012) document many instances of corporate/crowd cooperation, as when 77 million people viewed Susan Boyle's *Britain's Got Talent* audition on YouTube. Rather than staying in the informal realm, much of this energy tends to seep back into the formal system through increased broadcast audiences, ratings and advertising spends.

Finally, *educating*. Informal services are sometimes the first places where businesses and consumers acquaint themselves with emerging technologies, services or products. Commercial social media, for example, build on the legacy of online forums and bulletin boards. The open Internet Relay Chat protocol and its predecessors demonstrated the demand for both public and private instant messaging in advance of its contemporary commercial implementations in Twitter and the direct messaging services now deployed by Apple and many others. Informal media plays a role in building popular literacy within changing technological environments.

The interactions we labelled *functions* imply some degree of intent. Even if there is no simple deployment of informal activities in the service of the formal sector, these activities are being used in some way. We call the second group of interactions *effects*, and they are generally more diffuse. Effects are changes to the original, formal market as a result of interaction with informal elements. They may concern the formal market's scope, main players or scale. Effects might involve redistribution of activities, roles, power and value between the formal and informal sectors, between different locations, and between different groups of people. It is likely that for any given example, more than one of the effects described here may be relevant.

What kind of effects can be seen in current media economies? Table 1.2 contains a few examples. *Substitution* is a term used in economics to refer to two inputs, goods or services that can be used interchangeably. In the context of interactions between informal and formal media systems, the substitution process could describe the changes when one technology or medium emerges to provide a

Table 1.2   Effects: How Informal Activities Change Formal Markets, and Vice Versa

Effect	Definition	Example
Substitution	Relocation of activity into the informal zone (or vice versa)	Lost sales as a result of piracy; direct messaging substituting for SMS
Dispersal	Market activity moves around in ways that are difficult to track	Informal streaming of TV content creating value for advertisers, internet service providers and platforms (but not networks)
Extension	Creation of additional market demand in the formal sector	Shazam sales monetizing public music listening
Revaluation	Value changes due to circulation in informal economy	Counterfeit hardware diluting brand trust; subcultural circulation increasing brand cachet
Redeployment	Take-up, in the formal sector, of technologies and methods developed in the informal sector (or vice versa)	Formal peer-to-peer networking applications, such as Skype
Reconfiguration	Change in the organizational logics of a formal market	Movie distributors reducing prices of DVDs to compete with competition from pirates

comparable service, overtaking the previous standard (examples might include the eclipse of LPs, VHS, CDs and others, or the replacement of SMS texting with internet-based direct messaging). It could also describe broader market shifts, such as loss of revenue through file sharing, in which case paid transactions appear to move into the informal zone as unpaid reciprocal exchange. Additionally, it could describe the substitution of one group of workers for another (see the description of *outsourcing* above). Analytical precision is important here. Sometimes, substitution involves a shrinking or disappearing market, as when the *Encyclopedia Britannica* was killed by Wikipedia – a classic example of a dying formal industry replaced

by a free, informal structure. This was bad news for *Britannica* but good news for pretty much everyone else: Wikipedia's 'consumer surplus' is enormous. At other times, what looks like substitution may be the overall growth of a media industry. An example here is the emergence of home video rental in the 1970s and 1980s. Hollywood worried that video would cannibalize the revenue stream from theatrical exhibition, and went to great lengths to contain the video medium; but it is now generally understood that video led to overall growth for the industry, by opening up a profitable new revenue stream for Hollywood content. In retrospect, video appears to have had a substitution effect on certain parts of the theatrical sector, such as second- and third-run local cinemas, but elsewhere led to market *extension* – the creation of new markets on top of existing ones. Successful media technologies such as YouTube (which has created new advertising markets around uploaded content) or the track-recognition app Shazam (which allows smartphone users to identify then purchase the tracks they hear in stores, clubs and bars) are indicative of this kind of market extension. In the case of YouTube, as with video, this has also involved some substitution; the two effects can coexist.

In other scenarios the trend may be towards *dispersal*, when market activities are replaced by activities in a different category, or transactions move into many diffuse areas of the economy simultaneously. Sometimes transactions go overseas, or into a parallel market, or move across to a neighbouring technology, in ways that are difficult to track. The rise of home internet and mobile data subscriptions has dispersed other kinds of consumer spending, such as movie admissions and (increasingly) cable subscriptions, and has also moved much of this expenditure out of the category of 'entertainment' and into 'communications' or 'infrastructure' spending, making things harder to track. Similarly, some (but not all) of the money we used to spend on CDs has relocated to other parts of the music economy – merchandise, marketing tie-ins, and especially touring (Page 2011); and many ex-record label staff have resurfaced in fields like branding, touring, niche marketing and data analytics. Here we have a kind of substitution, but also a dispersal: revenue seems to disappear into the four winds but is actually relocating elsewhere.

At the level of individual media properties, *revaluation* can occur. Quantitatively, economic value can increase, or decrease, due to informal activity. Qualitatively, intangible value may change depending on what happens to them in the informal economy (increased street cred on the one hand; brand dilution on the other). Other common effects worth mentioning are *redeployment*, where

particular elements originating in the informal economy are taken up in formal commerce (as in the use of free and open-source software within large organizations), and *reconfiguration*, when formal players restructure their business models in response to informal competition. In all cases, we must be careful not to think in a zero sum way: just because changes take place in one industry, it does not mean that an equal and opposite activity will crop up elsewhere. Formal–informal interactions are more complex than this.

A final category of interactions is controls (see Table 1.3) – strategies by formal actors that seek to manage, contain, organize, systematize or curtail informal activities. There are various possibilities. Disciplinary and enforcement mechanisms seek to reduce or contain informal activity. We have called this category of action *restriction*.

Table 1.3 Controls: Mechanisms for Managing Informal Activities

Control	Definition	Example
Restriction	Reducing informal activity through the enforcement of rules	Litigation on the part of rights owners against ISPs and individuals
Codification	Rule-making that formalizes patterns of informal activity	Digital rights management technologies, that enable limited but not extensive sharing within a household
Authorization	Extending legal and bureaucratic frameworks to encompass new phenomena	The classification of digital games; licensing community television stations
Measurement	Generating information about the size and nature of the informal sector, enabling regulation and other formalizing strategies	Government and corporate monitoring of social media and peer-to-peer platforms
Promotion	Targeted interventions to encourage particular informal practices	Government endorsement and promotion of informal activities, such as geoblock workarounds

Anti-piracy enforcement is a classic example; so too are government censorship and rules about media conduct, such as anti-sexting laws. A related mechanism is *codification* that involves creating new categories, rights and limitations around informal activities, thus allowing them to be controlled while also permitting a certain scope of informality. Governance is not just top-down; other approaches seek to bring informal activities into the fold, moving them from the informal to the formal zone via some strategy of *authorization* (such as licensing schemes, classification and other official recognition). Some strategies of authorization, like broadcast licensing, not only recognize pre-existing entities but also create a space for new media institutions to emerge.

Measurement does not involve direct action of a positive or negative nature, but simply information-collection (though this is often the first stage for other governmental actions). The informal media economy is subject to a very high level of scrutiny by governments and corporations, with techniques from torrent tracking to household surveys. We will return to this issue in more detail in Chapter 7. Finally, governments can also publicize the energy of the informal economy as a solution to a pre-existing problem (*promotion*). Public institutions in some countries are now actively encouraging their citizens to make the best use of informal technological workarounds so as to counteract unpopular forms of market segmentation (HRSCIC 2013). Here, the innovative energies of the informal economy become a solution to other governmental problems produced by the formal sector.

We can make some general observations about these controls. They can produce formalizing and informalizing consequences simultaneously: by imposing taxation, for example, governments create not only more transparent and administered systems, but also the incentives to work around them. The market effects, and some of the functions, are clearly shaped by a search for lower costs or access to markets, whether for producers in the form of cheaper labour, for distributors as new market channels, or for consumers as lower prices. Highly regulated media sectors such as broadcast television necessarily erect barriers to would-be competitors; the informal sector can sometimes provide ways of circumventing constraints. As that example suggests, the role of government is plainly also essential: far from diminishing the importance of states, any fluid study of informal media must make regulation, taxation and administration central concerns. But here we are also dealing with the broader category of code as well as law. The rules embodied in technological designs, such as those intended to protect the interests of rights holders, may be

just as important as statutes or official policies. Lawrence Lessig (1999) famously captured this in his epithet, 'code is law'. (Given our observation of the informal economy, we would add the word 'sometimes'.)

The approach we have proposed here in summary requires (a) imagining a spectrum, (b) disaggregating the spectrum, (c) factoring in time and (d) analysing the interactions. By doing this, it gives us a set of categories and ideas to work with. What does it look like in terms of actual media? We offer the following illustration.

Formal–Informal Interactions in Television: The BBC Case

The BBC is the quintessential formal media organization. The world's largest and most influential public broadcaster, it has long been a model public enterprise, born during a time – the interwar years – of institutional experimentation and increasing state involvement in the economy. It remains a creature of liberal government and a legacy of empire, with a Royal Charter providing its constitutional basis. It has a great national civic and cultural remit to 'inform, educate and entertain', its own governance institutions (the BBC Trust, BBC governors), extensive internal regulation, a funding stream based on its own special form of taxation (the TV licence fee) and a large (although recently reduced) workforce. The BBC is at the centre of UK media policy debate, and much of the argument is necessarily about the BBC's consequences for other formal media. To its detractors, including commercial competitors and economic reformers, the BBC's dominant position in Britain crowds out private investment and innovation – an argument that goes back to its establishment as a monopoly broadcaster. For its defenders, the BBC is a bulwark of stability and integrity against the excesses of the market.

Like most other media organizations, the BBC is engaged in a series of complex interactions with the informal realm. These occur right across the organization's extraordinary array of production, distribution and market activities. Far from compromising its purpose, these interactions are in many cases strong expressions of the Corporation's public service remit. For instance, the BBC works extensively with user-generated content, from news and current affairs to entertainment and documentary. It uses amateur footage to cover natural disasters, wars and terrorist attacks. It works with fans who promote BBC programmes in their own unexpected ways. It piloted an open-access archive, the BBC Creative Archive, encouraging

users to 'rip it, mix it, share it'. It attracts talented performers and producers whose skills have been honed in comparatively informal settings: stand-up comedy, university drama, community broadcasting, YouTube or Vimeo. Strategies such as these produce several of the effects we have discussed earlier: the redeployment of informal methods and material in the formal sector; and the extension of the BBC's markets and the expansion of its audiences. In the case of some informally produced content, such as amateur news footage, it may even be that we are seeing an organizational reconfiguration, deeply affecting the conduct of journalism.

These informal and formal interactions have intensified in recent years as the BBC attempts to build on its online presence, globalize its operations and derive revenue from international audiences. One site where we see them in action is iPlayer, the BBC's internet-based service for on-demand 'catch-up' viewing. Catch-up services, enabling viewers to stream or download recently broadcast programmes, are notable features of the new digital media landscape. In our terms, they can be seen as a mechanism for formalizing the hitherto informal practices of personal recording and playback which depended on consumer equipment such as video cassette recorders or, later, hard disk recorders – in other words, they are an attempt to incorporate previously informal practices within a formal, regulated architecture. Personal recorders have given viewers a measure of control over scheduling, but they introduced a level of complexity into household audiovisual technology that could also be frustrating. From the perspective of copyright owners, recording devices opened the door for pirates; for broadcasters, viewers of recorded programmes were lost audiences, uncounted for the purposes of ratings. From the mid-2000s on, the broadband internet and the improving economics of cloud computing gave broadcasters the opportunity to regain some control. They could give viewers the chance to see programmes they missed. They could solve the piracy problem by using digital rights management to retain control over sharing and redistribution, and they could solve the metrics problem by using server data to track viewers across devices and platforms, and thereby augment traditional audience measures.

The iPlayer has not been an unqualified success. In fact, it has generated a series of controversies relating to its effects on competitors, its reliance at certain stages of development on proprietary and restrictive software platforms, and its lack of international availability. These controversies have fuelled informal responses: hacked or open source solutions for unsupported platforms, for example, when the service was restricted to Windows XP, and a

proliferation of technical workarounds enabling international access (British expats and global BBC fans often use VPNs – virtual private networks – to stream iPlayer content). At the same time, in terms of the framework introduced in this chapter, we can see the iPlayer enacting some of our key governing mechanisms in a previously unregulated space: the authorization by the BBC Trust of a new framework for public service internet television, the restriction on access outside the United Kingdom, the development of new measures of audience activity and the codified rules relating to household sharing.

While the BBC itself is subject to governance from above – in the form of the BBC Trust, the BBC Board of Governors, and various legislative instruments – a more interesting issue for us is how it seeks to manage the conduct of other producers in the media economy. Intellectual property regulation is a particularly important area for today's BBC. A prolific and prodigious producer of programmes, genres, web content, stars, books, TV formats, channels, merchandise, live events and media franchises, the BBC has a lot to protect, and many rights holders to manage. Its super-brands (such as *Top Gear* and *Dr Who*) are particularly valuable. In the past, the BBC has been content to tolerate infringing consumer activity around its content, sometimes even partnering with fan organizations to promote its shows. Bacon-Smith (1992) notes that the *Dr Who* Fan Club of America had an arrangement with the BBC to become, in effect, an 'authorized' distributor of branded merchandise. As the BBC has come under increased pressure to pay its own way, it has moved to a more restrictive strategy, with active enforcement and exploitation of its copyrights and trademarks, especially within its commercial spin-off, BBC Worldwide. Non-commercial infringers, including fans who post *Dr Who* knitting patterns online (Doctorow 2008), now receive cease-and-desist letters. The BBC has hired the freelance anti-piracy company Entura International to send out internet takedown requests (TorrentFreak 2013b). Yet, as a rule, it remains tolerant of small-scale infringements, and has a general reputation for being less demonstrably muscular in enforcing intellectual property rights than most media organizations of its scale.

This attitude opens up a limited, safe space for creative interaction with BBC content, and also catalyses the production of new kinds of content around the BBC ecosystem. One small example of an informal spin-off from regular BBC broadcasting is the UK-based audio streaming website Test Match Sofa, which represents a fascinating mix of formal and informal broadcasting models. Test Match Sofa was the idea of an IT manager who had lost his job in the

global financial crisis. Streamed live from his actual living room in Tooting Bec, the show began as a vehicle for alternative cricket commentary, a spin on the BBC's venerable *Test Match Special* programme, famous for its idiosyncratic and sometimes meandering style. Test Match Sofa was produced entirely outside the heavily controlled sports media industry. It is and was made by enthusiasts simply watching televised games and generating their own incisive and partisan descriptions and analysis in the form of an audio stream. In cricket journalist Gideon Haigh's words (2010), the Sofa reinvented sports broadcasting by bringing an unashamed amateurism to bear on a hyper-professionalized business, 'turning work into play, play into work'. But somehow along the way, Test Match Sofa has become a genuinely alternative source of cricket media. In 2013, when the Australian team toured India, the Indian cricket board refused to license a radio broadcaster for Australian audiences, leaving only Test Match Sofa as a provider of audio comment on the games – an ironic result, given the Sofa's comically unrestrained anti-Australian bias.

From our perspective, Test Match Sofa's relationship to the mainstream sports media involves several interesting elements. Clearly the site is a kind of tribute to a BBC programme and a certain style of mainstream media broadcasting, with parallels to fan sites developed in other genres. The effect of sites such as these is generally not to undermine or devalue the source of the inspiration, but to sustain and stimulate demand, cultivating the formation of groups of highly motivated listeners and performers. In this sense, the site is an example of what we are calling *priming activity*. If its function shifts – for example, it becomes more important as a source of information as a result of the Indian cricket board's commercial overreach – something else is going on. A different audience uses the site as a kind of workaround, to make sure that a flow of news is maintained despite the breakdown in the formal system. In this situation, and without any particular intent or design on its part, the Sofa fills a gap. None of this threatens the audiences or the viability of licensed broadcasters; any large-scale substitution of the Sofa for formal media channels seems unlikely. But there are positive possibilities: for redeploying the talents displayed on the Sofa in mainstream coverage, for extending the audience for cricket through more humorous, less reverential and formulaic treatment, and for demonstrating the feasibility of streamed audio services over the web. So while our typology attempts to describe and categorize a series of likely relations between the formal and the informal, the Sofa shows how these are combined and mixed in an actual informal media practice.

Uses and Implications

This chapter has outlined a lexicon for media industry studies – a way to talk about how industries change and how the various parts within them interact. One of our aims has been to provide an alternative to some of the more totalizing accounts of industry evolution: the drama of fragmentation, revenue loss and piracy that comes through in industry public relations; the seemingly inexorable process of consolidation and corporatization that marks political economy accounts; but also the hollow utopianism of 'digital democracy' and Web 2.0 discourse. Understanding media industry change requires an approach that can make sense of a range of effects and functions: some major, some minor, some good, some bad. We may have emphasized the positives more than the negatives, partly in response to the excesses of the industry-driven 'piracy debate' that forms the backdrop to this book. But if there is one thing that we would underscore in our account, it is that informality produces *differentiated* outcomes.

The informal economy is often good news for consumers: it means lower prices, more competition, free stuff, and better access. The informal economy also plays a significant role in the distribution of taste: it provides alternative channels of communication, together with access to content, that cross the boundaries of conventionally defined market segments. Where no formal supply exists, informal markets can satisfy demand – and by virtue of their dynamism, create further demand – for content that would otherwise not be available. In this sense, the informal media economy is an enormous reservoir of textual experience. For cultural producers in the formal economy, however, the prognosis may be more mixed. The informal economy, despite its generative capacities, can mean undercutting revenues and regulated working conditions. Substitution of formal transactions for informal ones is still common, and producers have a right to be concerned about revenue losses. (Although we must bear in mind the fact that the squeakiest wheels do not represent whole sectors.) The other thing to consider is what informality means for institutions. As we have seen in the case of the BBC, institutions can interact profitably and productively with informals, but it is very hard to create institutions from scratch using *only* the resources of the informal economy, at least not in the short term. Only a handful of significant media institutions, such as Wikipedia, have emerged this way. So, while the informal media economy means diversity and dynamism, it usually also means ephemerality, fragility, undercapitalization and – sometimes – inefficiency.

Innovation is another key theme: a vital role for the informal sector lies in providing environments where new ideas can emerge and are tested without the constraints and costs of regulatory and institutional structures. A corollary of innovation is uncertainty and unpredictability. As we've seen, cable services begin as simple infrastructures for retransmission, but without the bandwidth limits imposed by over-the-air broadcasting, they evolve into an entirely different kind of media. We have chosen not to describe technological disruption as an effect, even though new technologies play an unquestionably large part in making both informal and formal innovations feasible. This is because we see technological shifts as conditions of possibility, not as formative in themselves. Many of the transformations we are describing could not occur without the common ingredient of modern digital networking technologies, but these technologies do not explain the nature or direction of the industry changes that may follow their implementation in one or more forms. This is a key point: any given technology may be embodied in both formalizing and deformalizing innovations. Media streaming, for example, is an integral component in the architecture of YouTube, as well as the innumerable illegal streaming sites. It is also fundamental to mainstream 'on demand' or 'catch-up' video services such as Hulu and the BBC's iPlayer, both designed to bolster traditional broadcasting industry models.

Finally, a point about regulation. The connections we are describing here align with those found in the broader scholarship of informal economies, where they also help explain the persistence and dynamism of the informal sector. In that literature, considerable emphasis has been given to the ways in which the informal sector sits outside regulatory systems, and the opportunities for governments to formalize industries through taxation, licensing, measurement and the expansion of property or other rights. Because of this alignment, we would argue that there is also something to be learnt in the media context from the broader policy debates surrounding informal economies. Understanding the diversity of the interactions connecting the formal and informal economies should caution us against overly simple diagnoses and prescriptions. In the field of development studies, policymakers and researchers have often assumed that the informal sector is disorganized and unstructured, and that better statistics and more targeted regulatory interventions would underpin fairer and more prosperous industries. In practice, informal activities often turned out to be much better organized and managed than policymakers understood (Guha-Khasnobis, Kanbur and Ostrom 2006). The work of Elinor Ostrom and others on community-based

rules for managing common resources provides a well-known example. In the digital environment, we see some of the same sophistication, creativity and productivity in informal networks. This complexity helps explain the failures of broadly framed, industry and government-driven campaigns against informal activity, such as 'the war on piracy'. It underlines the need for careful, longitudinal research: sometimes the copying and sharing activities that industry groups assume are substituting for formal consumption turn out to be playing more of a market-priming role.

In the chapters that follow, we apply and extend the ideas presented here to contentious and challenging problems, events and people. We consider the issue of measurement, and the task of quantifying the apparently unquantifiable; we explore the double-edged quality of contemporary media brands; we return to the problems of regulation, of cultural trade and labour on our new Grub Streets. Before these, we turn to the ways in which we understand agency and action in media change. With the informal economy plug-in, our next chapter looks at the entrepreneurs who seem to have shaped our contemporary media histories.