The Changing Economic Contexts of Journalism

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Introduction

Professional journalism is expensive to produce. It has historically been funded in a variety of different ways—through subsidies from political actors and media proprietors interested in power to pursue their own ends, by for-profit businesses based on selling content to audiences and selling audiences to advertisers, and through various forms of non-profit models, backed by private philanthropists or politically mandated investment of public resources. These different forms of funding provide the economic context of journalism. They vary from country to country and evolve over time, intertwined with changes in audience behavior, media technologies, the wider economy, and political frameworks. They enable professional journalism by providing resources, but also constrain it by influencing how it is practiced.

The private, for-profit business of news is particularly central to investment in journalism. Even in a country like the United Kingdom, home to the licence-fee funded BBC, an estimated 79 percent of investment in news production comes from for-profit private sector media companies—69 percent from print publishers, 10 percent from broadcasters and cable/satellite channels, and less than one percent from digital-born news media (Mediatique 2012). Judging by Bureau of Labor statistics, print publishers still accounted for the majority reporters employed in the United States in 2016, and broadcasters for another quarter, with online media and "information services" at just 10 percent.[1] Political actors, proprietors, philanthropists, and public service media have provided important support for journalism, but in free societies, the bulk of investment has for more than a century come from for-profit media.

The business of news is thus central to enabling, shaping, and sometimes constraining professional journalism as we know it. The purpose of this chapter is to (1) summarize key insights into the economic context of journalism from research, (2) briefly sketch the historical evolution from a situation in the 19th century where much of journalism was produced by niche media heavily dependent on subsidies from political actors and proprietors to a situation in the 20th century where for-profit mass media dominated many media systems around the world, and then (3) turn to how the economic contexts of journalism are changing in different countries in the 21st century as digital media evolve and audiences increasingly embrace them. I focus on more or less democratic countries, leaving aside the business of news in authoritarian and totalitarian societies. Drawing on examples from Europe, India, and the United States, the chapter identifies both differences and similarities in how the economic context of journalism is changing, assesses what we know about the likely implications, and suggests directions for future research.

Basic aspects of the economic context of journalism

The business of news is a small part of a much larger set of media and entertainment industries including broadcasters and newspapers but also book publishers, consumer magazines, film, music, and various kinds of online services like search and social media

[1] https://www.bls.gov/emp/ind-occ-matrix/occ_xlsx/occ_27-3022.xlsx

(Vogel 2011). All of these companies compete for media users' attention, most of them compete for media users' money, and many of them compete for advertising.

To succeed, in this increasingly competitive "attention economy" where media users have to allocate scarce time amongst an abundant and growing range of media options (Neuman et al 2012, Taylor 2014), news providers need to balance three concerns—what will people pay attention to, what might they pay for, and what will advertisers pay for? News can be seen as a particular kind of information good within this wider market for media and entertainment content. How central news is varies by company and by sector. In the UK, for example, one study estimated that newspaper publishers invest on average 23 percent of their revenues in news production, compared to 4 percent for television broadcasters and just 2 percent for online media (Mediatique 2012). Similar patterns can be seen in other countries (Picard 2011, Nielsen 2012).

The limited share of overall revenues invested specifically in news reflect the particular economics of news production but also the fact that news is a small part of most people's overall media use. It is estimated that people in the US spend about 12 percent of the time they watch television watching news specifically.[2] The share of attention that goes to news is even smaller when it comes to digital media, estimated at between one and three percent.[3] News is widely used, often valuable, and important in many ways. But as Robert Picard (2011) has pointed out, we should not overestimate how much time, money, and effort people will invest in it.

As media users, we generally make two very different kinds of investments in media content (Vogel 2011). First, we pay for content with attention, with time that we could have spent differently. Media organizations in turn monetize our attention by selling it to

[2] http://www.people-press.org/2010/09/12/americans-spending-more-time-following-the-news/
[3] See for example http://www.poynter.org/latest-news/mediawire/145736/americans-spend-just-a-fraction-of-online-time-with-news-compared-to-social-media/.

advertisers. Second, we pay for content with money (unless it is offered free at the point of consumption as with much of broadcast and digital media). The mix of time and money invested is important both for individual users and for media organizations.[4]

Even if we may not see it that way, the opportunity cost of the time we spend with media—what we could have been doing instead of consuming for example news—often outweighs the monetary cost, the price we pay. The half hour I spend with a news app or broadcast bulletin is time I could have been with my family—or at work, and in the US, a half hour of work would earn me about $13 on average in 2017, an opportunity cost far above what most of us are willing to pay for news content. As empirical analysis suggests, “most people are a lot more willing to waste time than money” (Okada and Hoch 2004, 313), and many gravitate towards options that are free at the point of consumption rather than pay a few dollars for a specific source. Thus free at the point of consumption sources like radio, television, and later many online media have often built larger audiences than paid print newspapers.

Behavioral economists have studied the special effect of free as a price in a variety of experimental settings. Sometimes these experiments have limited external validity, but the results are interesting nonetheless. Kristina Shampanier, Nina Mazar, and Dan Ariely ran an experiment where, given the choice between a quality chocolate for ¢15 and a cheap cholate for ¢1, 73% of participants chose the quality option over the cheap one, but when both prices were reduced by one cent—keeping the price differential the same and thus theoretically leaving the utility of each choice unchanged—only 31% chose quality, with a clear majority opting for the free chocolate (Shampanier et al 2007). Such experiments illustrate the challenges that come with competing with free, a central feature of the media marketplace.

[4] In digital media more broadly, there are some services we pay for primarily with data, data that service providers in turn monetize elsewhere. This type of exchange is not yet a central part of the business of news specifically, even though news organizations are intertwined with the various forms of data collection going on online (see e.g. Libert 2015).

The mix of vying for audiences' attention (and money) as well as for advertising means that news organizations operate in what economists call "two-sided markets" where they are simultaneously catering to both audiences and advertisers and where their ability to reach one group of users will influence their ability to serve the other (Anderson and Gabszewicz 2005). Audience reach determines how attractive a news organization is to advertisers. And advertising in turn enable news organizations to invest more in the quality of the product and/or reduce the price for audiences. These kinds of cross-network effects have funded free-to-air broadcasting, freesheet newspapers, and free online news, and have helped keep the cover and subscription price for many newspapers well below the marginal cost of printing and distributing each copy. The mix varies by sector. For free-to-air broadcasters, virtually all revenues come from advertising. In contrast, cable and satellite channels have often relied also on subscription payments. In some countries, like India and the United States, newspapers have relied on advertising for 80 to 90 percent of their revenues, whereas newspapers in many European countries have often had a 50-50 split. Online, the dominant business model for news across both legacy and digital-born media has been free-at-the-point-of-consumption supported by advertising revenues, though increasingly, as I discuss below, many newspapers and some digital-born news media are moving to subscription and membership-based models (Cornia et al 2016, Myllylathi 2012, Nicholls et al 2016).

The inflow of advertising has clearly helped fund journalism and build wide audiences for some kinds of news. But economists also highlight that reliance on advertising can have negative consequences, including both a tendency towards competitive waste where a number of outlets all seeking to maximize their audience reach all cater to the lowest common denominator, leading to content duplication and lack of diversity and quality (Anderson and Gabszewicz 2005) as well as the risk that news organizations that primarily rely on their advertisers have strong incentives to under-report or bias news that might reduce advertising profits (Ellman and Germano 2009). In contrast, some economists suggest that media companies based on audience payment rather than advertising will build smaller audiences and invest less in content, but may produce more diverse output at a higher quality (Anderson and Jullien 2015). The risk, however, is that they cater to the interests, preferences, and prejudices of their paying audience.

Whether funded by advertising, sales, or some mix, news as an information good has several important characteristics across sector differences between broadcasters, newspapers, and online media (Hamilton 2004, Shapiro and Varian 1998, Vogel 2011). These have to with (1) news production, (2) news as a good, and (3) the market for news. It is worth dwelling briefly on each, because they shape news organizations across countries, across audience-orientation, and across platforms.

First, news production is characterized by high fixed costs and low variable costs. It is expensive to produce but cheap to reproduce (Doyle 2013a, Hamilton 2004, Picard 2011). Once all the work of reporting is done, and the administrative, commercial, and distribution infrastructure paid for, serving one additional reader, listener, viewer, or user comes at a very low cost. The combination of high fixed costs and low variable costs means that news production is characterized by considerable economies of scale and economies of scope (Doyle 2013a, Shapiro and Varian 1998). This means that large media companies often have an advantage over smaller competitors, as their average cost per user are lower, an advantage that can come through sheer reach (more users of a specific product) or through a portfolio model where a number of brands share back-end costs including distribution, management, and sales. It also means that news organizations need to reach a critical mass of revenues to cover their fixed costs, which is harder in smaller markets, including both locally and in smaller or poorer countries.

Second, news as a good is both (a) non-rivalrous and (b) an experience good. *Non-rivalrous goods* are goods where one person consuming the good does not prevent others from doing so and where one person consuming the good does not diminish its value for others (Hamilton 2004, Shapiro and Varian 1998). This is similar to many other forms of media content, whether books or broadcast programs but in contrast to most tangible goods (private goods like clothes and food or collective goods like drinking water) and rivalrous information goods like market intelligence that can provide a competitive advantage. It is important to note that non-rivalrous goods are not necessarily non-exclusive. Print (paid) newspapers, many cable and satellite channels, and some online news sources are only accessible for those who pay. The news they offer may be in the public interest and have public value, but it is thus not a public good in the strict sense of goods that are both non-rivalrous and non-exclusive. Free-to-air broadcast news and some forms of digital news are public goods in this narrow sense, but other forms of news are what economists call "club goods"—access can be controlled (they are exclusive), but the number of people accessing the good does not diminish its value for other users (they are non-rivalrous).

In addition to being non-rivalrous, news is an *experience good* (Hamilton 2004, Shapiro and Varian 1998). Experience goods are products where value and quality can only be ascertained by actually using the good. This is in contrast to "search goods", like a new car, where value and quality are easily assessed in advance, and "credence goods", like many forms of medical treatment, which are consumed on trust. When choosing between different competing experience goods, consumers often navigate by reputation. Especially in very competitive markets, news organizations therefore have to pay great attention to product differentiation along a whole range of dimensions, including choices about presentational styles, topics to covered, a partisan or more impartial approach, and the balance between factual reporting versus analysis and commentary (Hamilton 2016), as well as of course the target market (presenting oneself as a local or national brand, for example, or one oriented towards a young audience or a specific cultural, ethnic or political group). If a news organization does not effectively convince audiences that they—whether a digital-born site like MediaPart or a legacy organization like the *New York Times*—are different from all the many, many other news sources out there (often available for free), they are effectively reduced to competing in a commoditized market overflowing with near-indistinguishable substitutes, where people tend to pick based on habit, convenience, and price point.

Third, the market for news is often characterized by (a) market concentration and (b) susceptibility to market failure. *Market concentration* tends to follow from the combination of characteristics of news production and news as a good outlined above (Hamilton 2004, Picard 2011). The high fixed/low variable cost of news production favor the largest players in a given market, who can spread the high fixed costs of producing content across many users and therefore offer low prices. The cross-side network effects of two-sided markets in turn means that the largest players are often the most attractive for advertisers, enabling them to reduce prices for consumers even more and invest more in quality content. Empirically, media markets therefore tend to be dominated by a few large companies with many smaller firms occupying niche positions (Noam 2009, 2016). One global study of 30 countries across the world found that the concentration indices for the media industry in most cases is considerably above the threshold of a "highly concentrated" industry by antitrust enforcement standards, that news media concentration is even higher than industry averages in most countries, and that concentration is increasing (Noam 2016). These dynamics favor incumbents and result in barriers to entry leading to limited competition, especially in local news media markets (Picard 2011). *Market failure*, in turn, can result from both the public good/non-rivalrous character of much news production, and from the way in which the value of news is never fully captured by the economic exchange of money between audiences, publishers, and advertisers, because it has an impact beyond those directly engaged. News has what economists call “externalities”. Externalities are costs or benefits that affect people who did not chose to incur that cost or benefit. They can be negative, the classic example being pollution, which impacts not only a producer and a consumer, but also everybody else around them. They can also be positive, like for example getting a vaccine, which protects not only the individual but also those around her.

The full value of news, both the individual, private value to the users and producers as well as the social, public value to the surrounding society, is hard to calculate, and will vary from case to case and country to country. Some research has suggested that professionally produced news as we know it has a range of negative externalities, for example alienating people from the political process (see e.g. Capella and Jamieson 1997). But many other scholars have suggested that consuming professionally produced news, with all its many imperfections, is systematically correlated with broadly speaking beneficial outcomes, including people being more informed about public affairs, participating more in politics and civil associations, and being more engaged in their communities (see e.g. Snyder and Strömberg 2010, Norris 2001, Aalberg and Curran 2012). Especially public affairs reporting and some small and specialized subgenres like accountability journalism and investigative reporting often deliver public spill-over effects that benefit everyone, not just those paying for or paying attention to it (Hamilton 2016). The risk of market failure is particularly problematic for the specific kinds of goods that have demonstrable positive externalities that provide public benefits not captured by individual transactions on the marketplace (Baker 2002).

The problem of market failure in news production has several roots (beyond the basic fact that the market alone is clearly rarely able to provide everything a society needs in appropriate amounts, distributions, and ways). First, public goods are vulnerable to freeriding, where people enjoy the benefits of the good without necessarily paying for it. Second, this is then further exacerbated by spill-over effects, in that news can create value for me as a citizen even without me paying attention to it. An investigative story can bring down a prominent politician whether or not I actually read the story, let alone pay for it. Third, competitive markets for commoditized products with a marginal cost close to zero are unlikely to generate the profit needed to cover the high fixed costs of professional news production, further undermining the market production of news, unless significant resources are brought in from elsewhere to cover the cost—historically from political actors, media proprietors and other patrons underwriting loss-making publications, in some countries through public support for news and media, and in most contemporary media companies through advertising revenues that make the difference between profit and loss when the content itself is offered for free or for less than the cost of production and distribution.

From power to profit – the historical evolution of the economic context of journalism

The frequent reliance on various forms of direct or indirect subsidies highlights the importance of positioning our understanding of the present and potential future economic contexts of journalism in a historical perspective. Journalism is intertwined with the market, but not only with the market. Beyond the personal and professional ambitions of journalists themselves, there are three basic motivations for investing in news production: power, public service, and profit (Nielsen 2017). Philanthropic support, while important in specific instances, has always been a small part overall. In the US, combined public and philanthropic support accounts for less than one percent of total investment in journalism. Significant commitments of public resources to relatively independent public service media are confined to a small number of countries in Western Europe and a few other places like Australia, Canada, New Zealand as well as Japan and South Korea. What goes under the name of public service media elsewhere is all too often effectively state media with limited editorial autonomy (Djankov et al 2003). The majority of news production has thus been funded on the basis of the power motive (historically and in much of the world today) or the profit motive (increasingly, though unevenly, from the nineteenth century onwards) (Pettegree 2014).

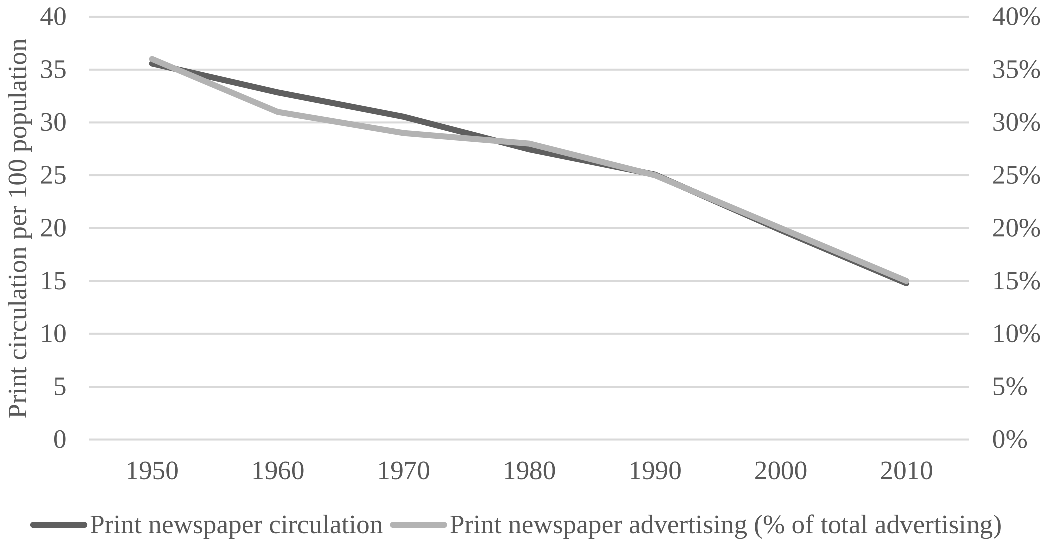
Historically, news in the broad sense of information about public affairs has long circulated by informal means like rumor and songs as well as by more formal means including correspondence, handsheets, pamphlets, and many other media (Pettegree 2014). But news in a more contemporary sense—as produced by professionals and distributed via various forms of media—is associated with the development of the newspaper and its popularization, first in Europe in the 1600s, then later in the North American colonies and elsewhere from the 1700s onwards (John and Silberstein-Loeb 2015). Briefly examining this historical development brings to light several important points about the changing economic context of journalism. First, news has been a business since its emergence in a modern form in the seventeenth century, and the practice of journalism has involved not only professional ambitions and political actors, but also commercial considerations, from the very outset. Second, the growth of the profit motive has, over time, expanded audience reach and tended to crowd out some of the more overtly political considerations central to many kinds of media, whether those sponsored by governments (official gazettes), by formal political actors (parties, trade unions, business associations) or civil society actors (religious societies and social movements). Third, this crowding out of political considerations by the profit motive has not happened everywhere or always to the same extent, even in countries where the business of news seems to be booming. The development of the economics contexts of journalism is deeply shaped by differences in local audience taste as well as variation in business strategies, professional norms, technological infrastructures, and public policy.

The need to make money has been a central consideration for journalists and news media from the very beginning of modern journalism. This is not some nefarious plot. People need to make a living. Organizations need to cover their costs. Investors expect a return on their investment. So someone has to pay. Early newspapers in England, for example, relied on both advertising and audience revenues, but as these alone could not cover the costs, they remained fundamentally dependent on direct and indirect subsidies from political patrons (John and Silberstein-Loeb 2016). In the late seventeenth century, the official and state-backed *London Gazette* was the only regularly published newspaper in the country, and those who wanted more news relied on comparatively expensive and limited circulation handwritten newsletters. A century later, this had changed, and printers and publishers increasingly offered periodicals based on a business of subscriptions and advertising. Similar developments can be traced in other European states, in the North American colonies (Starr 2004), as well as eventually in places like India—much as colonial authorities and vested commercial interests like the East India Company resisted it—with the launch of titles like the *Bengal Gazette* (in 1780) and the *Samachar-Darpan* (the first Indian language newspaper, launched in 1818). The titles of many of these early newspapers are useful reminders of their commercial orientation. London had the *Daily Advertiser*, the *Bengal Gazette* was subtitled "the Original Calcutta General Advertiser".

Most of these eighteenth-century newspapers had limited circulation and primarily targeted a small affluent, educated, and exclusive (often white) male elite. Even in the UK, with greater political liberties and a more vibrant publishing industry than most countries, the reading public in the 1790s was no more than 5 percent of the population (Starr 2004). It is really only in the late nineteenth century with the commercial development of the penny press in the United States and the Victorian urban newspaper in the United Kingdom that news organizations begin to make significant investment in news production on the basis of a business based on large circulation and profits from sales and advertising, giving rise to metropolitan newspapers in cities including New York, London, Chennai (*The Hindu*, launched in 1878) and Mumbai (the *Times of India*, launched in 1838). Such more popular, less exclusive papers coexisted with official gazettes and the newspapers of political parties, churches, trade unions, and some social movements like the suffragettes, but eventually came to dominate in terms of audience reach, advertising revenues, and hence their ability to invest in news. Whereas circulation a century before had been limited to a narrow elite, by the early twentieth century newspapers in the UK and the US reached a large part of the adult population. In India, the move from power to profit-orientation initially primarily expanded readership to a still small and privileged English-speaking elite. But since the 1970s, the combination of growing advertising expenditures, the evolution of printing technologies that work with multiple local scripts, and increased political focus on Hindi and regional language communities, has helped fuel a newspaper revolution in India that has seen daily circulation grow by more than 500 percent (Jeffrey 2000), a vast if imperfect for-profit democratization of the public sphere to include previously excluded groups (Ninan 2007).

The development of these genuinely mass media was enabled by growing literacy and the expansion of civil and political rights, as well as by economic growth and growth in advertising. With the industrial revolution, urbanization, and the rise of mass production in the nineteenth and twentieth century came the beginnings of modern marketing and the consumer society, and advertising expenditures grew rapidly (McDonald and Scott 2007). Newspapers were early beneficiaries, later on increasingly competing with radio and then television and now digital media (newspapers' share of total advertising has, like per capita circulation, been on the decline for decades in many high-income democracies – see Figure 1).

Figure 1 – US newspaper circulation and advertising share (1950-2010)



Data: 2012 US Census and Historical Statistics of the United States: From Colonial times to 1970. Douglas Galbi (on advertising). Note, last data point on advertising is 2007. Additional information provided by Robert G. Picard.

Since the beginning of the twentieth century, advertising has accounted for on average about two percent of GDP in the United States (with some minor fluctuations and with sharp downturns around major economic crisis), and the figure is about the same in some central and northern European countries (though the per capita expenditure in others, including Germany, Japan, and Italy, are much lower and have been so for a long time) (Trentman 2016). This growth in advertising created the incentives for more profit-oriented publishing. James Hamilton (2004) for example, had studied the development of the US press from 1870, when 13 percent of newspapers claimed to be politically independent, to 1900, when 47 percent did so. In his analysis, this dramatic increase in the number of newspapers who proclaimed themselves independent was driven by the development of the daily newspaper as a commercially viable product. Gentzkow, Glaeser, and Goldin (2006) similarly suggests that the marked shift from publications as instruments of political power to profit-oriented businesses was due to economic and technological changes that increased the optimal scale of newspapers and increased competition, leading US newspaper to focus on audiences and advertisers and the profits they could bring, rather than on pleasing their proprietors or political patrons. Similarly, the larger and more financially robust Indian newspapers have also been able to assert more independence from politicians and proprietors than smaller and more financially precarious titles (Jeffrey 2000). Journalism studies scholars rightly insist that commercial developments alone cannot explain changes in the profession and the industry. But there is strong evidence to suggest that financial sustainability is a necessary (even if not sufficient) precondition for editorial autonomy. Economists differ in their views on what the consequences are of the move from politically-motivated media to profit-motivated media. Strömberg (2004) has argued that profit-maximizing media choose to cover news of interest to the largest, most valuable group of customers, normally the middle class and upper-middle class. Dyck et al (2008) in contrast argue that profit-oriented media will tend to have a "populist" slant by appealing to a broad set of possible consumers (including the less-affluent portion of the income spectrum) to since this is its way to maximize demand. Mullainathan and Schleifer (2005) argue that in a competitive market, the critical question is audience preferences—if these are diverse, profit-oriented media will provide a range of different perspectives.

In more socially, politically, and economically unequal societies, and in places where journalism remained oriented towards elite politics and culture more than popular audiences, newspapers never build the same audience reach, commercial success, and resources to invest in news production that they did in the UK and the US. These institutional variations can be seen clearly when comparing across otherwise similarly affluent and free societies within Western Europe—newspapers in for example the Nordic countries, Germany, and the Low Countries grew, whereas those in for example France and Italy with a few exceptions remained elite affairs with limited readership, revenues, and resources (Hallin and Mancini 2004, Levy and Nielsen 2010). There, the profit motive did not crowd out political considerations out to the same extent, and many news media remained dependent on political patronage and/or proprietors with politically sensitive business interests.

Media scholars primarily approach this phenomenon through the lens of “instrumentalization”, situations where media are not controlled by journalists and executives, but by outside actors such as parties, politicians, social groups, movements, or business conglomerates who seek political influence and use the media they control for this purpose (Hallin and Mancini 2004, p. 37). This kind of political instrumentalization is not simply about partisanship as an editorial identity and form of product differentiation in the marketplace, but about how news production is funded and what it is funded for—power. It applies both to a feminist group subsidizing a website to influence public debate and to an authoritarian state controlling major media companies to keep the population docile. Economists uses the narrower term “media capture” to describe a situation where media are run not to create value and thus generate commercial profits, but are instruments for rent-seeking behavior that extract profit from collusion with political authorities through preferential treatment and/or public contracts (Besley and Prat 2006). Their focus has traditionally been government media capture, where advertising, ownership, regulation, or other means are used to reduce news media’s ability to ensure some degree of accountability and increase political elites’ ability to plunder public resources with impunity. (In the early 2000s, Djankov et al (2003) found that, globally, only 4 percent of newspapers and 5 percent of television stations were publicly traded companies. Most were privately held by powerful local families (often with other business interests and political connections), and 29 percent of newspapers and 60 percent of television broadcasters were state owned.) Of course, media can just as well be captured by proprietors who use them to further and protect their interests in part by exercising political influence. Whenever a news organization run at a loss—which many newspapers do in parts of Europe (Levy and Nielsen 2010) and most television news channels do in India (Mehta 2015)—it is always worth asking whether owners might be covering those losses through gains made elsewhere, perhaps in politically-sensitive business areas like arms manufacturing, extractive industries, government contracts, real estate development, telecommunication, or the like. Losing a few million a year on a newspaper may be a small price to pay if the influence (real and perceived) that owning it gives can help bring in tens of millions elsewhere. Such captured or instrumentalized media are common around the world, perhaps even the majority of news media (Djankov et al 2003). They are unlikely to hold private or public power effectively to account, and more likely to be used as instruments by proprietors and political patrons.

The rise of digital and how it changes the economic context of journalism

The move from power to profit as the central motivation behind many investments in journalism was premised on the expectation that it would, in fact, be lucrative to operate news media. Throughout much of the twentieth century, this was so. In a low-choice environment where media companies had high market power over both audiences and advertisers, established media in mature markets were often regarded as close to a license to print money (Picard, 2011). Advertising economists took it for granted that individual media outlets had an effective monopoly on “their” audience (Bagwell 2007). Commercial broadcasters generated huge revenues and could hence make significant investments in journalism to demonstrate their civic-mindedness and keep politicians and regulators happy, and though print readership per capita has been declining in many high-income democracies throughout the postwar years, newspapers that dominated their local markets could still deliver double-digit profit margins. The rapid move to a more digital, mobile, and platform-dominated media environment in the twenty-first century has left many aspects of media economics discussed above unchanged—the high fixed/low variable cost combination, the fact that most media companies operate in two-sided markets, that news is an information good, and that it is often funded not simply for profit, but also in pursuit of other motives like power. But it has drastically and rapidly changed the economic context of news in other ways. The most important aspects of this change are (1) vastly increased choice and competition, (2) the rise of platform companies that have won a large share of audiences' attention and advertisers' budgets, and (3) an evolving transformation in how news organizations make money as advertising revenues dwindle and more and more news organizations focus on pay models, and on various auxiliary sources of revenue like sponsored content, e-commerce, and live events.

First, the rise of digital media has vastly increased choice. The combination of legacy media investing in digital media, new digital-born entrants, the ability of all sorts of individuals (celebrities, sports stars, politicians) and organizations (whether private companies, political actors, or civil society associations) to publish online, as well as the explosion of user generated content, both on the open web in the forms of blogs and personal websites and (especially and increasingly) on social media sites (Facebook) and through microblogs (Twitter) and messaging applications (WhatsApp) means most people have far more content to choose from today than in the past. As the demand for media (measured by time spent) has grown only incrementally even as the supply (measured by content available) has grown exponentially (Neuman et al 2012), the competition for attention, for media users' money, and for advertising has become far more intense. For most news organizations, the overall implication is clear. They have moved from a low choice environment in which they had high market power over both audiences and advertisers to a far less lucrative high choice environment where they have very low market power. In the 1990s, advertising agencies and media companies imagined that digital display advertising—which was in some ways clearly superior to print and broadcast in terms of being, for example, interactive—might reach a CPM of $80 (cost per mille, the cost per thousand views) (Turow 2011, 44). But as the growth in supply outstripped the growth in demand, this is not how things have evolved. CPMs vary widely by demographic, topic, timing, and medium, so direct comparisons are hard. But figures from the US in 2011 still give a sense of how different the rates for digital advertising are from offline advertising. That year, industry observers estimated a $60 average CPMs for print newspapers, $23 for primetime network television, between $3.50 and $2.50 for generic online advertising, $0.75 for mobile display advertising, and just $0.56 per thousand impressions on social networking sites. The industry saying that analogue dollars (100 cents) turn into digital dimes (10 cents) and mobile pennies (1 cent) capture the stark differences in advertising rates between different platforms.

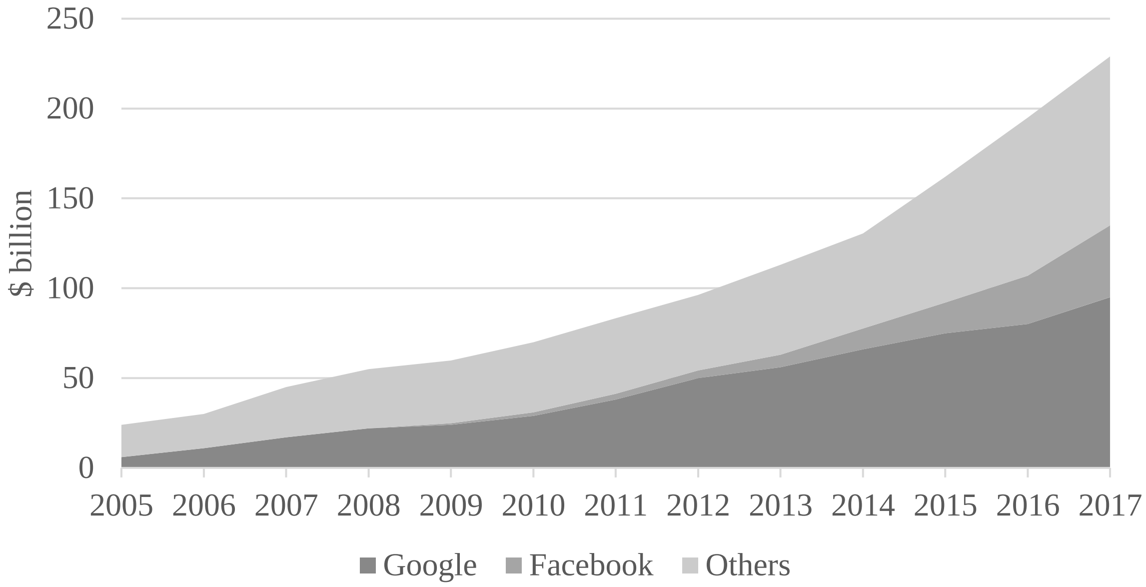
These pressures on publishers will further intensify if advertisers continue to move towards programmatic advertising that automate the buying and selling of impressions across wide advertising networks selling ads across thousands or even millions of sites, networks which help publishers sell their inventory, but also further reduce their market power, increase competition, and introduce new actors in the value chain (Busch 2016). In this market, attention sold in bulk is only profitable for those who have truly enormous reach and a very lean cost base. One critical challenge here for news organizations is to stand out and deliver a clearly distinct and valuable product or service to users—the alternative, of just being one of the countless content providers audiences and advertisers could turn to, is not sustainable. Information commodity markets do not work (Shapiro and Varian 1998, 23). Companies cannot cover the fixed costs of content production if competition drives prices down to the marginal cost and the marginal cost is effectively zero. (There is still money to be made elsewhere in media of course. Even as content producers see their revenues decline, people spend more and more on the hardware and connectivity that gives them access to digital content.)

Second, faced with abundant amounts of content, the way in which people navigate news is changing. As the economist Herbert Simon put it, “a wealth of information creates a poverty of attention”. Faced with countless options, people still rely on brand reputation (often benefiting established brands over new entrants), but also increasingly on search and social recommendations (Shapiro and Varian 1999). The strongest and most widely known media brands still tend to dominate weaker brands and newer entrants in terms of reach and recognition (Newman et al 2017). But one survey found that 2/3 of online news users identify distributed forms of discovery like search engines or social media as their main way of accessing news online, twice the figure for going direct to the websites or apps of news organizations (Newman et al 2017). These new forms of discovery are also contributing to the unbundling of previously bundled products (a newspaper or broadcast bulletin offered a collection of stories) as articles are increasingly read individually. This is convenient and efficient for users, but reduces the cross-subsidies that were central to how news media operated their businesses in the past.

The technology firms who enable such search and social recommendations at scale have in a few years grown to dominate much of the digital media environment, both in terms of attention and advertising. In much of the world, the most successful examples of this are platform companies like Google and Facebook. They have built digital platforms that enable interaction between at least two different kinds of actors (typically users and advertisers) and in the process come to host public information, organize access to it, and create new formats for it, and changes the incentives (or disincentives) for investing in public information about public affairs. Whereas product companies (like publishers) profit by creating something and selling it for more than it cost to produce, platform companies profit by creating markets and benefiting from the transactions they enable, what economists call “gains from trade” (Moazed and Johnson 2016). They grow quickly by ensuring more or less frictionless entry for the individual users and various third parties (like advertisers and publishers) that they want to enrol, and benefit from network effects as each additional user or third party increases the value of the network as a whole and increase the opportunity cost of opting out (Parker et al 2016). Collecting detailed behavioural data on users across and sometimes beyond their networks, they can offer far more precisely targeted advertising than traditional publishers, something that, with the reach and low cost they offer, makes them very attractive to advertisers (Busch 2016). By essentially “inverting” the traditional firm structure and relying heavily on users and third parties to populate and enrich their services, they maintain very low marginal costs and focus their efforts on two critical tasks—first, maintaining the specialized, complex, and extensive technical infrastructure that enables automated action, advertising, and data collection at scale, and, second, trying to manage the externalities of the large and complex networks they enable (Parker et al 2016). (As persistent problems of disinformation, hate speech, trolling etc. illustrates, these network effects are not always positive.) US-based platform companies dominate many markets around the world though domestic platforms are still strong in some like Japan and South Korea and Mainland China is dominated by Tencent and Baidu.

The most successful platforms have built extraordinary reach and capture a large share of media users’ attention. In 2016, according to comScore, US media users spend on average about eight and a half minutes per day on the websites of all US news media combined. By comparison, they spend 16 minutes on sites owned by Google (Google Search, YouTube, Gmail etc.) and 34 minutes on sites owned by Facebook. The dominant platform companies are involved in an asymmetrical but in some ways mutually beneficial relationship with thousands of news publishers, who are amongst the actors who have sought to make use of their products and services. Both search engines and social media increase news media's reach and drive traffic to their sites (Athey et al 2017, Kalegoropolous et al 2017), and many publishers have aggressively invested pursuing these opportunities, sometimes collaborating closely with the platform companies themselves (Nielsen and Ganter 2017). They also increasingly offer various forms of business-to-business collaborations that more and more publishers are also embracing, including advertising services like AdSense, DoubleClick, and Facebook Audience Network, marketplaces for paid content like Apple's Appstore and Google Play, as well as revenue sharing agreements around content posted to platforms like YouTube and platform-native formats like Facebook Instant Articles. (In 2016, company reports suggest that Facebook channeled $3 billion back to their various partners across the world through revenue sharing agreements, and Google $11 billion.) At the same time, however, publishers and platforms also compete directly for attention and advertising. A minute spent on Facebook will not be spent on a news app or website. And because the overall amount of money spent on advertising as a share of GDP tends to be broadly stable over time, the combination of the structural shift from analogue to digital media and the simultaneous move from traditional forms of display advertising (which publishers offer) to search advertising and social media advertising puts additional pressure on publishers. The most successful platform companies have leveraged classical economies of scale, network effects where user growth enhance the value of products and services for all users, and data network effects, where information gathered from one area of activity (like messaging) can enhance the value of another (like advertising). They can offer advertisers low prices, individual-level data-based targeting, and high unduplicated reach that publishers cannot match, and have quickly come to dominate the market for digital advertising. (See Figure 2.)

Figure 2 - Estimated global digital advertising revenues (2005-2017)



Data: Ian Maude, Be Heard Group, data from Google, Facebook, and estimates from Enders Analysis and eMarketer. Note: both Google and Facebook share some of their advertising with partners through various revenue sharing arrangements.

Third, faced with these competitive pressures, more and more publishers are concluding that the hitherto dominant model of offering digital news for free at the point of consumption with the aim of monetizing audiences' attention through advertising is unlikely to work for all but a few large players and some much smaller players. (The middle, traditionally occupied by smaller national newspapers, regional papers, and local papers, is a difficult place to be (Grueskin et al, 2011).) In North America and Western Europe, most legacy and digital-born news media are still not returning a profit on their digital news operations even after more than twenty years of investment and significant audience growth (Cornia et al 2016, Nicholls et al 2016). Two of the largest English-language news websites in the world, the MailOnline (230 million monthly unique users) and the Guardian (150 million monthly unique users) were not profitable in 2016, despite their extraordinary reach.

Legacy media investment in online news are subsidized by profits from offline operations. Digital-born media investments in online news are often fueled by investors who hope for profitability and high returns over time (or are supported by owners who are investing their life savings, or by foundations and others committed to their mission). Even the biggest international digital-born news media, like BuzzFeed, the HuffPost, and Vice, have struggled to meet their revenue projections and return a profit (Nicholls et al 2017). As a consequence, news organizations are increasingly looking at other sources of revenue to supplement or perhaps replace advertising, including sponsored content, e-commerce, and offline activities like events (Cornia et al 2016, Doyle 2013b).

Perhaps most importantly, as the advertising market grows more challenging, newspapers in North America and Western Europe are increasingly adopting pay models. Shortly after Arianna Huffington proclaimed that "the paywall is history" in 2009, a number of general interest newspapers began to launch new pay models first in Europe (*Hamburger Abendblatt* in Germany, *Le Figaro* in France, the *Times* in the UK all introduced paywalls in 2010) and later in America (the *New York Times* followed suit in 2011). As of 2017, one study found that 66 percent of major newspapers across six European markets operated some form of pay system for online news, up from close to zero ten years before (Cornia et al 2017). There are clear examples of success both from business newspapers like the *Financial Times*, high-profile general interest newspapers like the *New York Times*. Perhaps more broadly relevant than these unusual titles, a number of other newspapers have also built significant digital subscriber bases, including up-market general interest newspapers like the *Helsingin Sanomat* in Finland and *The Times* in the UK, tabloid titles like *Bild* in Germany and *EkstraBladet* in Denmark, and the portfolio of local titles owned by Amedia in Norway. A number of digital-born news media have also build significant numbers of paying subscribers (or "members", as some call them), including the pioneering French site

MediaPart as well as sites like De Correspondent in the Netherlands and El Diario in Spain. But paywalls have failed for others. The British tabloid *The Sun*, for example, introduced a paywall in 2013 only to dismantle it again in 2015 to return to a focus on building high reach based on free content.

Publishers introducing pay models face several challenges. First of all, they compete with a large number of free alternatives. The same research that found 66 percent of European newspapers operating pay models found that all major broadcasters and almost all digital-born news media still operated free models (Cornia et al 2017). Second, in this context, where news is abundant and often offered for free, including by many prominent brands, only a minority of news users are paying, and a relatively limited number say they might be willing to pay in the future. Of those who are not paying, by far the most common reason offered in one survey was, simply, “I can get online news for free” (Newman et al 2017). Third, this suggests the challenge of introducing pay models in a context where people may have come to expect that content is generally freely available. Economists call such expectations “reference prices”, the price that people consider reasonable to pay for specific types of goods (Kalyanaram and Winer 1995). Here, product differentiation in an increasingly commoditized content market is crucial, standing out from the many freely available alternatives, as is the way in which other media habits (including paying for print news or subscribing to on-demand services like Netflix or Spotify) may influence reference prices and increase them to above zero. Indeed, one recent study found that people who subscribe to a print newspaper and younger people (who are more likely to being accustomed to paying for digital content and services like apps, games, music, or video) are significantly more likely to pay for online news (Fletcher and Nielsen 2016). The role of reference prices is particularly important in a market like India, where news media face many of the same challenges as elsewhere in terms of breaking even on the basis of digital advertising, but where pay models are complicated by a long tradition of very low print cover prices heavily subsidized by advertising. Some titles, including both legacy media like the *Business Standard* and digital-born news media like The Ken have introduced pay models, but pricing strategies will be complicated in a context where even English-language up-market newspapers like *The Hindu* or the *Indian Express* are sold for just a few rupees in print.

As a consequence of the move to digital, audiences and advertisers are empowered in a number of ways, and some technology companies have grown very profitable and powerful, but news is a far less lucrative business than it was in the past. Many news organizations are struggling to adapt cost structures and organizational forms developed for offline mass media environment in the twentieth century to the realities of a digital, mobile, and increasingly platform-dominated media environment in the twenty-first century, the value of many media companies has declined even as their new competitors grew, and it has consequentially become cheaper for those interested in investing in news to exercise power (or pursue public service) to do so (Nielsen 2017).

Future research on the economic contexts of journalism

"Technology changes. Economic laws do not." (Shapiro and Varian 1998, 1-2) That is how one pair of media economists confidently put it at the beginning of the rise of digital media. This chapter has summarized some central and still defining aspects of the business of news based on insight from media economics (the "laws"), but also provided a brief historical perspective and a closer look at the move to a more digital, mobile, and platform-dominated media environment to present an overview over the changing economic contexts of journalism (the "changes").

The implications of this "unfinished digital media revolution" (Nielsen 2016) are highly context dependent. In mature markets with historically strong news media industries, like the Nordic countries, the German-speaking countries, and the UK and the US, digital disruption has been keenly felt, and publishers' revenues, market value, and investment in news production have dropped markedly. But the drop has been from a high point in the 1990s and major news organizations continue to have considerable resources and are often profitable and valuable, though less so than when they occupied the commanding heights of the media environment. In mature markets with historically weak news media industries, like much of Southern Europe, the impact has been much the same, but has hit a much weaker industry where more and more titles are now unprofitable and increasingly reliant on proprietors subsidizing them or in danger of closing altogether. In emerging markets like India, many news media still see growth in their offline audiences and advertising revenues as economic growth and increased literacy means more and more people join the formal economy. But with the spread of smartphones and mobile web access, young people are abandoning broadcast and print in favor of digital media, and the growth rates, especially in print but also in television, are far lower than the overall economic growth and population growth alone would suggest (KPMG-FICCI 2017). Here too, news media increasingly have to ask themselves what the business of news looks like in a predominantly digital media environment.

In all three contexts, the overall media economy is likely to expand, but will increasingly be dominated by those who provide the connectivity, products, and services that people rely on to access and navigate digital media, and these sectors invest far less in journalism than legacy media like print newspapers. In the most general terms, the likely consequences are that people have access to more content and more media, but that we will see less investment in professionally produced original journalistic content. News media organizations who benefited from low choice and high market power in the 1990s will have to come to terms with high choice and low market power in this environment. A few will chase scale and try to expand their reach and activities. Others will, voluntarily or involuntarily, become small niche media. Many will fail to find a sustainable model in a much more competitive environment. The challenges of clear differentiation in a commoditized market, reaching the critical mass necessary to cover fixed costs, and operating a lean enough organization to remain sustainable are fundamentally the same for both legacy and digital-born news media, though they of course come at these challenges from very different starting points. The years ahead will demonstrate both sides of Joseph Schumpeter's famous phrase "creative destruction" as some organizations reinvent themselves, new ones emerge, and many disappear or survive only in much reduced form.

This is not a comfortable outlook for journalists, or for that matter for journalism studies researchers. But it is one that we need to confront and that raises many important questions. These are in part about what we research, but also about how we do it—as Talia Stroud (2017) has pointed out, scholars can choose to engage far more directly with the profession and the industry to try to help the people we study navigate an uncertain and rapidly changing environment. Some of the most pressing issues are—

- A more empirically-grounded and differentiated understanding, both within and across countries and between organizations, of the details of the move to digital media. Most available analysis of the economic context of journalism is either based on historical data from a different, earlier environment or operates at an aggregate level that risk obscuring important variation. We particularly need more analysis of digital-born news media, of local news media, and of changes in the news media outside North America and Western Europe.
- Advertising has been the dominant source of revenue for many news organizations for more than a century. In recent years, the sector has changed at a breakneck pace

(Turow 2011), in ways that have produced significant challenges for news organizations, as outlined above. But many news organizations continue to rely on advertising, including new forms of advertising including programmatic advertising, advertising revenues generated through revenue sharing with platform companies, and various forms of "native advertising". There is very little original research on these developments and their implications specifically for journalism.

- How does journalism create value and when might people be willing to pay for news? Economists caution that news organizations must price their goods according to consumer value, not according to production cost (Shapiro and Varian 1998). But we know very little about how journalism creates value for audiences, and when, where, and for what people might be willing to pay. As advertising revenues decline and more and more news organizations turn to pay models, it is becoming ever more important to understand pay behavior, as well as the wider implications of the turn from advertising to pay. More broadly, the value of different kinds of journalism (accountability reporting versus routine coverage, politics versus culture, etc.) at both the level of individual users and at the societal level, including both potential for positive and negative externalities, is under-researched.
- Beyond advertising and pay models, how else do and can news organizations make money that may help fund investments in professional journalism? And how can and will journalism respond to changes in the business that enable and constrain the profession? Can we learn from other studies of the "experience economy" about how entities as different as sports franchises, mega churches, and celebrities create and capture value and use these insights to understand the evolution of journalism and the business behind it?

- In light of how the rise of the profit-motive gradually and partially marginalized news media operated on the basis of the desire to exercise political power, how can we understand instrumentalization and media capture in an environment where most news media are likely to become far less profitable and commercially valuable, but will remain politically and socially influential and thus attractive assets for self-interested actors who want to pursue their own narrow interest?
- Given the risk of market failure in news, and given how the changing media environment leave existing forms of political and regulatory intervention at risk of significant "policy drift" (Nielsen 2014), what are the implications of such drift, of proposed and possible policy reforms, and what other forms of funding, including non-profit or foundation funding, might be found to address market failures? (Benson, Powers and Neff 2017, Cage 2016)

These are not questions we can outsource to economists, who have few reasons to care about the business of news specifically, and who because of their core interests may lose sight of wider social and political implications of current changes, implications that journalism studies are committed to understanding. These questions are questions about business, about economics, about the commercial realities that have always been part and parcel of news. They focus on issues that both journalists and journalism studies researchers sometimes shy away from. Journalism in many countries makes its claim on professional autonomy and occupational authority in part by distancing itself from business considerations. Similarly, though the changing economic contexts of journalism is one of the single most important factors reshaping the profession and news institutions today, journalism studies as an academic field is often curiously shy about actually empirically studying these changes. This professional and scholarly ignorance is deeply detrimental to our understanding of one of the most important forces reshaping journalism and the news today. Perhaps it is time that both journalists and academics keen to understand how news is changing take inspiration from one of the most famous tips in the trade: follow the money.

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