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# News economics

## How property rights and the price mechanism influence media content

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A thesis for a BS-degree in economics

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# Foreword

This is a 12 ECTS credit equivalent thesis towards a BS degree in economics. It is an expansion on a short essay on news and property rights written in a course taught by professor Þráinn Eggertsson in the fall of 2011. The supervisor of this thesis is associate professor Birgir Þór Runólfsson, while the advisor is professor Eggertsson. I would like to thank professor Eggertsson for introducing me to the wonders of institutional economics and his invaluable advice on writing the thesis.

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## Abstract

Deterioration of news quality over the last decade or more has been widely reported by media studies scholars, officials and journalists alike. The theories provided by critics to explain the phenomenon are somewhat unconvincing thus far. This thesis attempts to contribute to the literature on news quality by explaining it as a function of property rights using the New Institutional Economics paradigm within a flexible and original analytical framework. It is argued that “common pool news“ based on widely recognised information is overproduced due to similar reasons that common pool resources are overharvested. It is also argued that advances in information technologies have eroded property rights by making copying of original news, or scoops, easier, thus making it harder for the originators of scoops to reap the benefit of their production, causing an underemployment of resources to independent investigation and analysis. Simple models are presented to support both hypotheses, as well as data on media coverage in the years preceding the collapse of the Icelandic banking system. Some remedies are suggested, including government subsidies. General recommendations for an optimal subsidy scheme are made, supported by a six country overview of media subsidies in western Europe.

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# 1 Introduction

The Icelandic Special Investigation Commission‘s (SIC) report on the causes of the collapse of the Icelandic banking system in 2008 included an inquiry into the failure of the Icelandic media to provide the banks with sufficient critical constraint. It contained the following passage on general media market developments over the last decades:

> The emphasis on the public service aspect of news has decreased, and the emphasis on its role as a marketable product has increased. Garnering as large an audience as possible is becoming its goal, and tabloid journalism and entertainment value are increasingly emphasised. Issues that require time and careful analysis have been replaced by non-issues. Education and information have been replaced by quirkies and entertainment. Media conglomerates require profits; they demand cutting costs and raising revenue and productivity. Newsroom executives yield to these demands and cut down their staff and production time and seek out stories that might please advertisers and sell as many copies as possible. [...] Newsrooms have to depend more and more on material produced by public relations representatives as journalists are becoming ever more bound to their desks and have ever less time to gather information and check their facts (Kristín Ástgeirsdóttir, Salvör Nordal og Vilhjálmur Árnason, 2010).[1]

In other words, the authors of the report have noticed a distinct change in both what news is reported, and how it is reported. To an economist, the most apparent interpretation of this passage is that the SIC thinks the media is not providing news of a socially optimal quantity and/or quality, even though the authors describe it using a different choice of words. They describe this perceived development quite explicitly, without making any effort to analyse its exact causes. In this short paragraph they express a vague view that excessive commercialisation of information, extreme competition and the growing corporate greed of media owners are to blame for the silent deterioration of quality journalism. Similar views seem to be quite prevalent around the globe (Croteau, D. and Hoynes, W. 2001; Briggs, A. and Burke, P. 2005; Frijters, P. and Velamuri, M. 2009).

[1] Author‘s own translation.

Even though these explanations may look plausible at first sight, the fact is they do not constitute a particularly credible critique of media quality. The SIC's theory has several glitches.

For one, the revenue pattern of the general media has gone relatively unchanged in almost 400 years. The first newspapers relied on two main sources of income; advertising and subscription and/or single copy sales. Obviously the revenue from subscription and single copy sales are a direct function of readership. The advertisement revenue is an indirect function of the same variable, since media firms can charge advertisers with higher prices when their circulation is wider.[2] In 1650, a typical newspaper carried around six advertisements. A hundred years later, that number had grown to about fifty (Briggs, A. Og Burke, P. 2005). These are exactly the same revenue sources as newspapers and other forms of media rely on today, so the simple notion that news or information conveyed by the general media is any more commercialised in modern times than it has been in the past is hardly substantiated by a casual look at historical development.

Competition cannot be the culprit, since it has been an inherent feature of the media market since the advent of printed news. Even though the form of competition has evolved with technological developments, nothing has indicated changes in its basic nature; there is a number of firms competing for the attention and readership of consumers now, just as it has been for the past centuries. Why should it be causing a decrease in quality now any more than before? Besides that, basic economic theory tells us that competition should provide consumers with more quality at less cost, given that quality is both observable and preferred by consumers – which seems to be a

[2] There is actually a wide array of literature looking at advertising as a source of revenue for media firms. We shall take a closer look at one aspect of this literature later on; the preferred business model of firms with respect to whether their main source of income is advertising or direct charges to consumers. Another aspect deals with the screening role of media in the presence of asymmetric information, since media firms can elicit information on the endowment of its readers through the price they charge. Models dealing with this are interesting, albeit a bit bizarre, since their benchmark is a market where advertisements are traded directly, i.e. firms pay consumers to view their ads. Further review of these models might take us off track, but interested readers are referred to Kremhelmer and Zenger (2007).

reasonable assumption in the media market (at least up to a point under particular circumstances as will be explored in subsection 2.2. on quality uncertainty).

Finally, there is no evidence that media owners have become somehow “more“ profit maximizing, or to use common terminology, “greedy“ in the last decades than they have been in the past (after all, profit maximization is a binomial trait of firms; either they are, or they are not). It would therefore seem that the anecdotal explanations of media market developments posed by the SIC and others have some serious deficiencies when put to the test of economic theory and methods.

The largest one is that their cornerstone is a sudden change in utility functions that cannot be explained in any rational or profound way. In other words, the explanations entail that consumers must suddenly prefer entertainment news to careful analysis, or that owners‘ preference for profit has grown stronger over time. Theories grounded in nothing more than a sudden change in preferences obviously have limited validity.

Briggs and Burke (2005) actually warn against the dangers of asserting that the media is continually getting worse at all. There are, however, convincing economic arguments that the SIC might be right in their conclusion, even if their reasoning is somewhat flawed.

In analysing the theory that modern media is underproducing quality news, we should apply the economic paradigm, which would have us look at journalists, newsroom executives and owners of media firms as rational agents, each one optimizing their utility or profit given a set of constraints and incentives. And rather than explaining changes in their actions over time as completely different reactions to unchanged incentives, the analytical question should be: Have the incentives and constraints they are facing changed?

In the next section, we shall take a closer look at some of the economic theories that predict an underproduction in news. In the third section, some detail is provided on the relevance of property rights for news. The fourth section tries to explain this further by formalising an analytical framework and some models. The fifth section takes a closer look at the effect the internet has had on the efficient provision of news. In the sixth section, some data is provided in support of the predictions made in the fourth section. The seventh section suggests some remedies for the problems caused by a lack of secure property rights. The eighth section takes a look at public subsidy schemes for media firms across six European countries. Section nine makes some general policy prescriptions for an optimal subsidy scheme. The tenth section concludes.

# 2 Three existing theories

Though competition for readership and corporate greed do not suffice to explain why profit maximizing firms would supply news inefficiently, that isn‘t to say they never do. Three main theories in economics have been devised, or rather applied, to explain why profit maximizing media might not produce the socially efficient quantity of news or the efficient quality, or neither – each one with certain shortcomings when it comes to serving our stated purposes. Let us look at each one of those in turn.

## 2.1 Rational ignorance

The rational ignorance of voters was first implied by Anthony Downs (1957). Its basic assumption is that voters reap almost no benefits from voting "correctly", that is, from making an informed decision and supporting a party that will do what is in the best interest of the voters in question.

If the private benefit from any voter‘s informed decision if he were to single handedly decide the outcome of a given election is denoted by *B*, and the probability of his vote breaking a tie between parties by *P*, then his expected benefit from voting "correctly" must be *PB*. Since the probability of any single voter casting the deciding vote is insignificant, he does not collect any sort of relevant premium by going to the polls informed.

The voter is ready to incur a cost equal to $C=PB$ at most to gather information that is not available to him for "free" (by the radio in his car, chatter in his local hot pots etc.), and thus values political information and news on current events at less than their social value. Voters are, in other words, rational to be ignorant about politics.

If this assumption is true, then rational profit-maximizing media firms will supply consumers with less news on politics and current events than is socially optimal, because of the low level of private demand. There is however a problem with the rational ignorance theory. Even though it can explain underproduction of news from the political sphere, it provides no explanation for underproduction of news of the financial sector, which seems to have been prevalent in Iceland during the years before the collapse of the Icelandic banks as is demonstrated in section 6.

Holding deposits, loans and/or securities of banks and other financial institutions means that most people have enormous private stakes in the health of the financial sector. They have absolutely no rational reasons to be ignorant when it comes to their own money, so they should have been demanding more critical news of the financial sector than the equilibrium supply of the media suggests.

In addition, as Logan and Sutter (2004) point out, critics of the commercialisation of news are more often concerned with the quality of news, than their quantity – which brings us to the second theory.

## 2.2 Asymmetric information

Consumers face uncertainty when it comes to the quality of news for two main reasons. The first one is that news is an experience good, which means that consumers have no way of observing the quality of news before they actually consume it. The second one is that news is a credence good, which means that consumers often have difficulties observing the quality of news even after they consume it, since they cannot easily evaluate how knowledgeable the journalist is on the subject, how reliable his sources are and what information is possibly being omitted from a particular piece to name but a few problems.

In his classic paper, The Market for Lemons, George Akerlof (1970) explains how markets break down when quality is unobservable, and the buyers and sellers of a good have asymmetric knowledge of its quality. The following is what should be expected to happen, then, to firms trying to sell pieces of news; most will be producing low-quality news at low costs, passing them off as high-quality news at high prices, and since firms actually trying to supply high-quality news cannot distinguish themselves from the low-quality ones, the market in its entirety will go down the drain in a fit of adverse selection.

Akerlof himself observes several counter-acting institutions that solve this problem – the most important ones for this analysis being the *brand name good* and *licensing practices*.

Brand names make it possible for consumers to retaliate when quality is low by curtailing future purchases – if a firm wants business tomorrow, it cannot shirk its customers today. Just as used car dealerships with brand names and expensive showrooms signal the quality of their cars (after all, what dealership would invest heavily if its intentions were to only sell lemons and go bankrupt?), the media is signalling the quality of their news by creating brand names and investing in printing houses, broadcasting equipment etc. For instance, just think about televisions news' extravagant and noticeably expensive anchor studios or sets, and introductions.

Following this line of reasoning indicates that different kinds of media have different levels of disincentives to try and profit off low quality news depending on how much fixed investment they need to make to function. Solely web-based media needs to make the lowest fixed investment (no printing- or broadcasting costs), so one would expect to find the lowest quality level there. If it were not for certain problems in the market for internet news that will become apparent as the thesis progresses, web media insistent on producing news of high quality might consider differentiating themselves from the rest by investing more heavily in extravagant headquarters or other observable variables to signal quality and force themselves to live up to the signals.

Logan and Sutter (2004) cite several studies indicating that repeat sales coupled with reputation, or brand name capital, can counter inefficiencies arising from unobservable quality by providing incentives to supply high quality. Both of these criteria are present in the market for news; all news outlets rely on repeated or continued readership and so acquire brand name capital over time which serves as an indicator to consumers of expected utility from an unseen copy of news.

When the brand name capital of a media firm is high, consumers are likely to expect a high degree of utility from that firm's news when faced with uncertainty about its quality, and thus risk the costs associated with consuming them (for instance, by buying the latest copy of a newspaper published by the firm). If it ever supplies lower quality than the consumer expects, its brand name capital is diminished. Since the reputation of media firms is paramount to consumers' choice of media, it provides a powerful incentive to maintain a certain quality standard; if the firms want readership and revenue tomorrow, they cannot shirk their customers today any more than the used car dealership can.

Another thing reinforcing these effects are the licensing practices mentioned earlier. By that, Akerlof was not necessarily referring to literal official licenses, but rather observable certificates of quality by independent agents – such as awards. The Pulitzer Prize is probably the best known journalistic token of prestige on a global scale, but most countries have one, if not several, national awards for journalistic work. They are often awarded by journalists themselves, who are presumably in a better position to judge the quality of other journalists‘ work than the general public. Logan and Sutter (2004) actually question whether journalists‘ and readers‘ preference for news coverage always coincide; consumers might not value the same aspects of quality as journalists. Their research indicates that a divergence of professional and general perception of value is not an issue when it comes to media licensing practices.

Using a regression analysis of a cross-section of U.S. newspapers, they found that daily and Sunday editions of newspapers that had won a Pulitzer Prize during the preceding decade had considerably higher circulation than others, even after controlling for various relevant economic and demographic variables. The daily circulation was about 55 percent higher, and the Sunday circulation about 45 percent higher for the papers whose journalists had received the Pulitzer Prize. In their own words; "the results suggest that consumers do value quality and that news organizations could find establishing and maintaining a reputation for high quality profitable over time," so even profit-maximizing owners of media firms may well invest in quality journalism.

To conclude, institutions like brand name goods, licensing practices and signalling seem to reduce the problems of quality uncertainty so dramatically that asymmetric information can be ruled out as the main reason for underproduction of quality news. So much for Akerlof's help with solving the case! That isn't to say that this subsection was a waste of paper. The theory of quality uncertainty might in fact contribute to explaining the existence of media firms in general – they are the used car dealerships of truth and credibility. The last existing theory of quality news underproduction will explain why.

## 2.3 Public good and externalities

As soon as a piece of news is published, it ceases to be a private good and transforms into a public good. This is true of most information – as soon as it is publicly available, it can be consumed by one consumer without diminishing the quantity available to others (non-rivalry), and it is terribly hard to exclude anyone from consuming it (non-excludability). This is especially true of news, since legal property rights in the media market are barely defined at all as the thesis will explore in much greater detail later on. Additional problems are caused by the fact that news can be disseminated with extremely low fixed costs, and a marginal cost of zero thanks to advances in information technology (IT) (Rayna, 2008).

News is therefore a commodity ill suited for market exchange, which might imply that the service consumers are actually paying the media for is filtering the information relevant to them, and vouching for its validity (similar to the used car dealership mentioned earlier) – but not necessarily the information or news itself, because in theory it cannot be traded. By saying so, the fact that most media firms collect a large portion of their revenue through advertising is being overlooked. An important commodity of the firms is thus de facto neither information nor certification of its validity, but access to a target group of consumers for other firms – although these concepts must be closely related, since media firms could not provide access to readers if they did not have any, and they probably would not have any if their news was continually false. Rayna (2008) cites theoretical, experimental and empirical studies on an additional reason for why information goods might be produced, despite them being public goods; namely that consumers are more likely to weakly free-ride, than to do so perfectly. In other words, they contribute something to the provision of the good, making production possible, but not enough for it to be efficient.

Another aspect of the public good problem of news is that a portion of its benefit can be reaped by everyone in a particular society whether they pay for media services or not – even whether they read the news or not. This is possible because watchdog journalism of a free media raises the costs of abusive behaviour of both government officials and corporations alike, and thus creates incentives for better behaviour, benefitting everyone. By exposing and publicising the widespread use of industrial salt in food products in Iceland in 2012 for example, the national media made sure that the companies involved in the scandal discontinued use of the salt, and minimised the probability of any company using it ever again. This obviously benefits everyone in society, whether they have the slightest interest in news of the scandal or not. Anyone can probably think up similar examples from other countries. An international one might be the widely reported use of defected PIP silicone breast implants that posed serious health risks to women all over Europe in 2012, which has now been discontinued, in part thanks to the media.

Still another aspect of the public good nature of news is related to the first existing theory of underproduction mentioned earlier, namely that of rational ignorance. As I demonstrated in subsection 2.1, chances are that from the standpoint of a single voter, all the other people participating in a given election will in the aggregate have a much greater say in the outcome of the election than he will. That voter will, however, have to abide by the outcome, so he would obviously prefer that all the other voters vote "correctly", that is, that they make an informed decision. In other words, he derives some benefit from the readership of certain types of news by other voters, since it will make them more capable of voting "correctly".

The economics approach to describing the public good nature of the services of media firms followed in this thesis is clearly distinct from the media studies' approach, which generally holds that there is a fundamental public interest in communications media, without specifying exactly what the public interest is. A few, rather vague, definitions have been put forth, including the preponderance theory that maintains that public interest is simply the sum of individual interests or preferences, and the common interest theory, that maintains that the interests in question are those that all members of a given society have in common (Mcquail, 1992). How these public interests are exactly defined is thus often left to debate, and they are rarely stated as explicit externalities, like the ones mentioned above (how could public interest even be separated from private interest if it were not for externalities, one wonders?).

The media studies' line of reasoning hardly constitutes an analytical approach likely to reach a convincing conclusion on media market optimality. Denis McQuail (1992), an influential scholar in the field, even goes so far as to say that it is not appropriate to investigate the media within a framework of cost-benefit analysis, and that there is no optimal outcome against which to judge the market provision of news. Most economists will probably find serious fault with that notion – all transactions can be described using costs, benefits and preferences of different agents and all markets have an efficient provision best described by a *functioning* market equilibrium, at least in theory. It is a tiresome tendency of some fields to claim that the laws and methods of economics do not apply to them for one reason or another; usually because they believe that their goods or services are somehow different from all others.

When getting to the bottom of why news is not produced efficiently, the most convincing method is to state the incentives faced by market agents explicitly as costs and benefits, then derive their behaviour based on their preferences and judge it against the optimal behaviour. Here, the problem is that the equilibrium provision of news occurs in a *dysfunctional* market; transactions for news only take the private benefit of consumption into account, and not the social benefit created by its external effects listed above. This means that the price mechanism is sending a signal to the media that its product is less valuable than it actually is, causing underproduction.

## 2.4 Do these theories suffice?

The three theories listed above provide some very useful insights into the factors possibly affecting the supply of news. The public good theory is particularly useful, since it provides quite credible reasons for why the private provision of news might diverge from the socially optimal output.

The problem with all three theories is, however, that they provide a static explanation for the divergence, but fail to provide a dynamic one. In other words, the theories might explain why quality news is underproduced *at any given time*, but they cannot really shed a light on why the underproduction should be getting worse *over time,* like the SIC and many others seem to suggest.

This is where the new institutional economics (NIE) paradigm comes in. Alchian and Demsetz (1973) proposed a simple set of questions that an institutional analysis of social problems should set out to answer. Within the context of this thesis, these questions are: (1) What is the structure of property rights in the media market? (2) What consequences for market transactions flow from that particular structure of property rights? and (3) How has that property right structure come into being? This thesis will argue that by answering these questions, the NIE approach has the advantage of explaining the divergence of the privately and socially optimal provision of news both statically (at any given time) and dynamically (over time).

# 3 Property rights and news

Before venturing further into the analysis, a distinction must be made between economic property rights and legal property rights. I follow Yoram Barzel (1997) et al. by designating economic property rights as the ability to consume a commodity or an asset‘s services directly, or indirectly through exchange, while the legal property rights are simply the rights that the state assigns to agents of the economy and is willing to enforce. As Barzel points out, the former are the end that people ultimately seek, while the latter are means (albeit neither necessary nor sufficient) to achieve the end.

When it comes to many physical goods, there is usually no ambiguity about the relevant economic or legal property rights. The grower of an apple is its owner until he sells it and the same goes for the maker of the shoe and the baker of the bread. There is but one physical unit of each, the property rights of which is reserved for its creator until it is transferred for something valued more in an act of voluntary trade. The reason each of them decides to undertake the necessary investment and effort needed for production is that they are, using the words of Barzel, residual claimants. Being residual claimants means they stand to gain from any value added to their product, so it is in their best interest to maximize its value.

Because information is essentially a public good in nature, like noted earlier, there can be considerably more ambiguity to the property rights of information than of physical private goods. Intellectual property (IP) laws protecting copyright are intended to counter this ambiguity, and ascertain property rights for information goods. The goal is to give them as many aspects of private goods as possible; including facilitating trade by creating transferable economic property rights, and providing incentives for innovation and production by reserving the net benefit of any intellectual creation for its creator. This goal is apparent in the concept “*copyright*“ itself – the right to make *copies* of any original work was the author‘s alone. Reaching these goals of proper incentives posed quite a challenge though, because they had to be reconciled with providing efficient access to consumers at a price equal to the marginal cost of diffusing the information. This has historically been done sequentially by offering copyright to authors for only a limited period of time. (Léveque and Méniére, 2004).

Securing economic property rights by assigning legal copyright was not a formidable task in the case of literary art and music when copies were strictly physical, such as printed books and vinyl records. For most of the 20th century, the biggest copyright infringement anyone could make was to loan a book to a friend or make a cassette of a record already bought. The reason the task was not formidable is that copying an analogue good (a record, for example) without unacceptable loss of quality required access to an original copy. Piracy in the non-digital era therefore required a large number of originals spread out among the population. This restricted the extent of piracy, making both the legal and economic rights secure relative to modern times.

The legal rights have not changed much since, but the economic rights have been continually undermined by advances in information technologies that have transformed information into a *digital good*. Becoming a digital good means copying artistic work no longer requires access to originals. Each copy can be copied infinitely many times without any loss of fidelity, not even over time, making some forms of art perfectly replicable and durable (Rayna, 2008). The only copy consumers would in principle need to pay for is the first one – after that, they can make and distribute illegal copies for free. Apparently even systems thoroughly guarded by legal property rights have weaknesses when economic property rights cannot be fully secured. But what, then, of information goods such as news, which is not even protected clearly by law?

The nature of news makes it very hard to define any sort of property rights over it. News is a report of an event, remark, situation or development deemed relevant to the general public by a mass media firm that has decided to disseminate it. Obviously, the legal protection of IP laws mentioned above covers news photographs and –videos, as well as individual media firms‘ choice of words up to a (largely undefined and limited) point. The problem is that most often, it is not the form or precise presentation of the news the consumer is concerned with, but its content.

The converse is often true in the case of artists. When buying a novel, it‘s reader is not just concerned with the story; he‘s concerned with the author‘s ability to tell it. Halldór Laxness did not win a Nobel Prize for his idea of a starving farmer in the

Icelandic wilderness, but for his formulation of the idea – his prose. The Beatles would not have garnered a large audience if they'd have just published musical sheets with their compositions – their ability to play instruments, sing songs and perform won them acclaim as well. These examples illustrate why it is sometimes easier to define and secure legal and economic property rights over the product of artists' intellect than journalists', and is in part due to a strict insistence on objectivity in journalism that has a tendency to separate news, the product, from the journalist or media firm, the producer. The marketable abilities of artists on the other hand are tacit knowledge, linked to their persona. Therefore, while consumers have a preference for epic tales by Halldór Laxness and Beatles' songs performed by The Beatles, they do not necessarily have as strong a preference for news from a certain source (at least not above and beyond that it is from a trusted news outlet). In general, they care more greatly about the event, remark, situation or development that is being reported than they do about the report in and of itself.

This lack of concern for particular sources of news is closely related to the reason why it is hard to define legal property rights for news. Journalists or media firms can at best own a certain choice of words in a particular story describing a topic, but they cannot own the topic being raised any more than they can "own" an event or someone else's remark. In other words, no one can own the facts being reported.

This might seem a simple enough proposition, but it has actually been challenged a few times in US courts (Anderson, 2010). The most important instance was in 1918 when The Associated Press brought action against The International News Service. The latter had lost its war correspondent privileges due to unfavourable coverage of British losses during the First World War, and resorted to various methods to gain access to AP reports from the conflict zones before rewriting them and publishing them in newspapers of its own. The simplest infringements entailed reporters reading AP publications on the east coast of the US, then telegraphing their content in to their colleagues on the west coast who rewrote and republished it there a few hours later due to the time difference, making readers think that the INS actually scooped the stories (INS v. AP, 1918).

The issues raised at the hearings of the case are extremely similar to the ones being studied in this thesis, although they were certainly not presented within an economic framework, but a legal and philosophical one. Samuel Untermeyer, representing INS, asked whether "[...] there is a right of property in news or knowledge of the news or in the quality of "firstness" in the news that will survive its publication by the gatherer in any of the newspapers to which it has been delivered for the express purpose of publication and sale until the gatherer of the news and all of its customers have secured their reward; or does this news become public property as soon as it has been published by any of the papers to which it has been surrendered without restriction for that specific purpose?" (News Pirating Case, 1918).

There are several interesting findings in The Supreme Court of the United States' verdict in the case. For one, the justices agreed that there is no infringement of legal rights whatsoever when firms use each other's reports as "tips" to start or further their own independent investigation and analysis. Even when other firms' stories are reported without any independent sources, such as in the INS case, the court found that copyright laws indeed did not cover facts - just as long as there was no claim that one party copied the news of another word for word. Or as the justices put it:

> It is not to be supposed that the framers of the Constitution, when they empowered Congress 'to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries' (Const. art. 1, 8, par. 8), intended to confer upon one who might happen to be the first to report a historic event the exclusive right for any period to spread the knowledge of it (INS v. AP, 1918).

They did, however, find that since both parties are seeking to make profits from reporting the same subjects, or set of facts about events, remarks, etc. gathered at a cost of skill, labour and money, at the same time and in the same field, the facts must be regarded as what the justices called *quasi property*, albeit outside of copyright law. The justices seemingly intended these quasi property rights of news to only be applicable between firms, to hinder unfair competition, and not against the public. The verdict of the Supreme Court was therefore to affirm the decree of the Circuit Court of Appeals, which held that INS should refrain from using news issued by the AP, its members or their publications “until its commercial value as news to the [AP] and all of its members has passed away.“ (INS v. AP 1918).

This precedent created what has been named the “hot news“ principle or doctrine[3], which, at least in principle, creates a limited and temporary sort of legal property rights over breaking news – although dissenting justices Holmes and McKenna held that it should not apply as long as the originating firm is given due credit.

Although the ruling is extremely interesting, further discussion of it might take us off course without adding substantially to the economic analysis, so let it just suffice to point out that most judicial systems do not have an equivalent of the hot news doctrine precedent, and even in the US it is rarely tested, and less so invoked (Alison Frankel, 2011). Despite the discussion of INS v. AP, the legal rights are therefore muddy at best and the economic rights muddier still.

The lack of clearly defined rights is an important factor, because it means that any given media firm cannot effectively stop other firms from reporting on the same topics as itself, or negotiate which firms will report them. Let us illuminate this line of thought using one of the most famous examples of investigative journalism in the history of modern media: The Watergate scandal.

Even though the hard hitting journalists of The Washington Post exposed various crucial elements of the Watergate burglary and the subsequent cover up by then U.S. president Richard M. Nixon, and reported them ahead of other media firms in 1972, The

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[3] A later ruling in the case of the National Basketball Association v. Motorola Inc. further defined what constitutes hot news under the doctrine. It has come to be known as the five part NBA test of hot news misappropration and is stated as follows by Applegate and Schermerhorn (2011):
(i) the plaintiff must generate or collect information at some cost or expense;

(ii) the value of the information must be highly time-sensitive;

(iii) the defendant’s use of the information must constitute free-riding on the plaintiff’s efforts to generate or to collect it;

(iv) the defendant’s use of the information must directly compete with a product or service that the plaintiff offers;

(v) the ability of other parties to free-ride on plaintiff’s efforts would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened.

Post was unable to prevent other newspapers from free riding on the work it had done as soon as the Watergate affair finally blew up as a national scandal in 1973, in part due to The Post itself (The Post Investigates, n.d.). Other media could deliver news of the affair as they pleased, contact political pundits to comment on it, write editorials and even use the news previously published by The Post as a the basis of their own reporting. In other words, other media firms could profit off The Post‘s initial discoveries in a variety of ways by turning them into their own marketable commodities. Even Icelandic journalists with foreign news subscriptions could sell copies based on the investigative journalism of Woodward and Bernstein who first exposed the scandal by rewriting their stories.

A reader wanting to obtain information on the affair therefore was not bound by The Washington Post‘s monopoly on the subject, since such a monopoly never existed. Once an event has taken place anyone can report it at any time, because even though IP laws cover a choice of wording, they cannot reasonably cover particular topics, such as events, remarks, situations or developments – the stuff of news. Generally, it is therefore open season for news, even though a particular media firm may have reported them ahead of anyone else with considerable effort invested. This is because the information underlying the news has been placed in the public domain as soon as anyone reports it, to use Douglas W. Allen’s (2011) formulation of the concept, where rights are too costly for anyone to own – at least in the long term.

This lack of property rights over intellectual product has similar effects as a lack of property rights in all other markets; namely large externalities that media firms are never forced to take into account through the price mechanism when making production decisions, causing inefficiency.

What will also become apparent is that even though legal property rights over news have been largely absent throughout history, some limited economic property rights were secured by technological constraints in earlier times. Almost needless to say, these constraints have been continuously vanishing as IT advances. The economic property rights are disappearing with them, causing ever greater externalities. The next section will provide an analytical framework to explain the different sorts of externalities present in separate types of news production decisions.

# 4 Types of news and associated externalities

In this section, an attempt will be made to further explain the factors guiding profit maximizing media firms‘ production of news and related content in a competitive market, affecting their coverage. To do so, I apply the NIE approach coupled with familiar economic models from the sphere of public economics.

No attempt will be made to analyze news coverage where freedom of the press is severely restricted, ownership dictates media content or government run media firms serve the explicit or implicit role of safeguarding particular regimes. Since efficiency concerns are the subject of this thesis, media markets governed by entirely different premises fall outside of its scope. Readers interested in media bias can find interesting models in both Mullainathand and Schleifer‘s (2005) and Gentzkow and Shapiro‘s (2006) work, which more or less holds that when readers‘ views diverge on topics, profit maximizing media firms try to conform to the prior beliefs of their target group. I overlook such heterogeneities in the population of readers and simply assume that their preference for news and journalistic quality is homogeneous.

First two different types of news must be distinguished. These are designated as *common pool news* and *scoops*, each type of which has different externalities and implications associated with individual media firms‘ coverage. In both instances economic property rights of firms are limited, although certain measures can be taken to secure them when it comes to scoops. The biggest difference lies in the externalities caused by each, since they are negative in the case of common pool news and positive in the case of scoops. Let us proceed to describe the different properties of each type, as well as their implications for the efficient provision of news.

## 4.1 Common pool news

Common pool news is a report of an event, remark, situation or development apparent to all media firms, when relevant information is equally and freely accessible to different firms. Examples of the subjects of common pool news are quite diverse and might include legislative votes in parliament or congress, press briefings of government officials (like the White House daily press briefing) or corporations, court verdicts or natural disasters that are unlikely to escape the attention of any attentive media firm. This definition also covers news reliant on press releases or official data, since media firms have equal access to that sort of information, and an equal opportunity to disseminate it.

When this is the case, it is obvious that no single firm has any sort of property rights over the subject or topic in question. It is no coincidence that I have termed this type of reports common pool *news*, since it is in most respects similar to an unregulated common pool *natural resource*. An individual subject of common pool news can be likened to a shoal of fish swimming in the ocean waiting to be caught and turned from living organisms to physical, marketable goods - except that subjects of news are anything but physical. Instead, they are abstract pieces of information on events and remarks floating around the public sphere, waiting for media firms to turn them into marketable goods by diffusing them to the masses, at which point they more or less transform into a public good.

That is why the problems arising from these two common pool situations are similar in most respects. Since property rights are not defined, the media cannot negotiate how to report on each subject efficiently any more than the fishermen in the example above can reach an agreement on maximizing the rent from fishing, absent enforcement of their contracts. What happens in the media market is that individual subjects get overreported by the competitive media firms, just like delicate stocks of fish are overharvested, with the rent from production totally diluted in both instances.

### 4.1.1 A simple model of common pool news

This conclusion can be highlighted using a simple model. It might look familiar, since it is in fact a variation on the classic Gordon-Schaefer model initially introduced to explain the concept of economic overfishing in open access fisheries (Gordon, 1954), and similar to the one used by Léveque and Méniére (2004) to explain depletion of innovation value during patent races.

A few assumptions underlie the model. Firms operating in the market for news are identical and the revenue contribution of each firm‘s report on a single subject, *r,* is dependent on how many observations it generates, *l,* more than anything else. What is meant by *observations* is the report's number of readers or the size of its audience; in other words, its overall consumption, in whatever form. It is important to note from the outset that each consumer can consume reports of numerous firms on any given subject. Assuming there is a relationship between observations and revenue is a reasonable postulate since the former variable, *l,* influences the latter, *r*, both directly through subscription- and single copy sales and indirectly through other firms' willingness to pay for advertisements, as noted earlier.

Kind, Nilsen and Sörgard (2009) actually devise quite an interesting model to try and explain media firms' different choices of business models: Some firms rely on subscription sales, while others rely on advertising. Simply put, Kind, Nielsen and Sörgard reach the conclusion that market power grants firms the ability to charge higher fees for advertisements as well as subscriptions. Firms providing news coverage that is differentiated from the rest of the market have more monopoly power in their consumer segments, so they are able to charge high *subscription fees*. This might for instance be true of specialised financial newspapers. What dictates the market power of each firm in the *advertising market,* however, is simply the number of firms. As more firms enter the market, the market power of each decreases, so they will bid down the price of the limited ad space in their publications when competing for advertisers. In short, when substitutability between publications is greater, ads become a more important source of revenue than direct payment from consumers. When the number of competing media products grows larger, direct payment from the consumer becomes a more important source of revenue than ads.

They suggest a few (too few perhaps?) empirical examples consistent with their view, one being that the only viable business model for electronic, or web based, newspapers which cannot offer unique content is a high reliance on ad revenue, while differentiated TV channels are best able to charge subscription fees. This is an interesting proposition, but as the thesis progresses, it will become apparent that a more widely applicable explanation for the different firms' choice of business model is different degrees of property rights. Material posted online is more easily copyable than is material on the television, which means that news has more qualities of public goods (that is, less clearly defined property rights) in the case of the web media, than in the case of the broadcast media. And who, in their right mind, would pay subscription fees for public goods? This line of reasoning will become clearer, but in the meantime, let it suffice to say that it should be completely viable to assert that revenue of a firm grows with the number of the observations its reports garner; their audience or readership. To simplify matters, it is simply assumed that *r=l.*

Let us also assume that *l* serves as a proxy for the benefit derived from the report by its consumers. One can think of the observations as the readership of a pool of consumers, each one with a uniformly distributed willingness to pay for his observation between *0* and *a*, so *l* could be taken to reflect some sort of average level of benefit or utility created across all the firms providing reports on a subject, similar to the media model devised by Frijters and Velamuri (2009).

A media firm‘s cost of producing a report on a given subject, *c(t),* is solely a function of the time its writer, the individual journalist, spends on it – let us assume that the relationship is a linear one, *ct,* since most journalists operate on a fixed wage. This assumption might sound farfetched on the whole since media firms‘ costs are only partially wages, while a significant portion is comprised of printing- and broadcasting outlays as well as investment in various capital and IT. Those latter variables can be treated as fixed, though, since they have no influence on the marginal decision of producing any single piece of news.

The consumers of news are unlikely to be willing to consume many different media firms‘ reports on the same event or remark, that is, to consume what is essentially the same information over and over again. This can be clarified with a recent example from the Icelandic news. On the 15th of February 2012, the national Supreme Court ruled on a dispute regarding the interest payments of exchange rate indexed loans. These loans are carried by a large number of both households and companies, and constitute a sizeable portion of the balance sheets of national banks, so naturally it was of interest to news consumers and thus to news outlets. A quick look at the Icelandic media firms‘ reports on the verdict clearly shows how similar the information disseminated in each one is. An interested consumer probably would not have found it worth his trouble to read news of the ruling in three daily papers, five web editions and watch two evening news programmes to boot, because the marginal rate of benefit from observing an additional report is quickly decreasing.


**Figure 1 Examples of Icelandic common pool news: Icelandic readers will notice immediately that news on the Supreme Court's verdict offers very similar information. Foreign readers will have to take the author's word for it.**

This means that some consumers will only be interested in consuming a report of any given subject, such as the Supreme Court verdict mentioned above, once. Fewer consumers would like to read two reports, a still smaller number is willing to read the two reports *and* watch one on the evening news, and so forth. Total observations by all consumers of all firms‘ reports of a single subject are therefore denoted by the marginally decreasing function *L(N)*, where N denotes the number of media firms reporting on the subject in question. The report of each firm will increase total costs of disseminating information on the subject, denoted by the linear function $C = Nc(t)=Nct,$ without necessarily creating value to match by increasing total observations of the reports sufficiently. To see why, let us examine each firm‘s contribution to total observations (remember; for simplification revenue equals observations, $r=l$).

Given that the firms are competing for the attention of a single group of news consumers and make production decisions simultaneously, each of their reports‘ contributions to total observations of a given subject can be denoted as $l= L(N)/N.$ Intuitively, that means that each firm‘s production of news is generating decreasing additional total value, since *L(N)* is concave, while continually causing the observations of all other firms to fall because of the equal division of consumption implicitly assumed by identicality. This means that each firm‘s production decision will not only affect its own profit term, $\pi=l-ct,$ but also all others‘ because of the rising *N*, by which it is inflicting negative externalities upon the other firms.

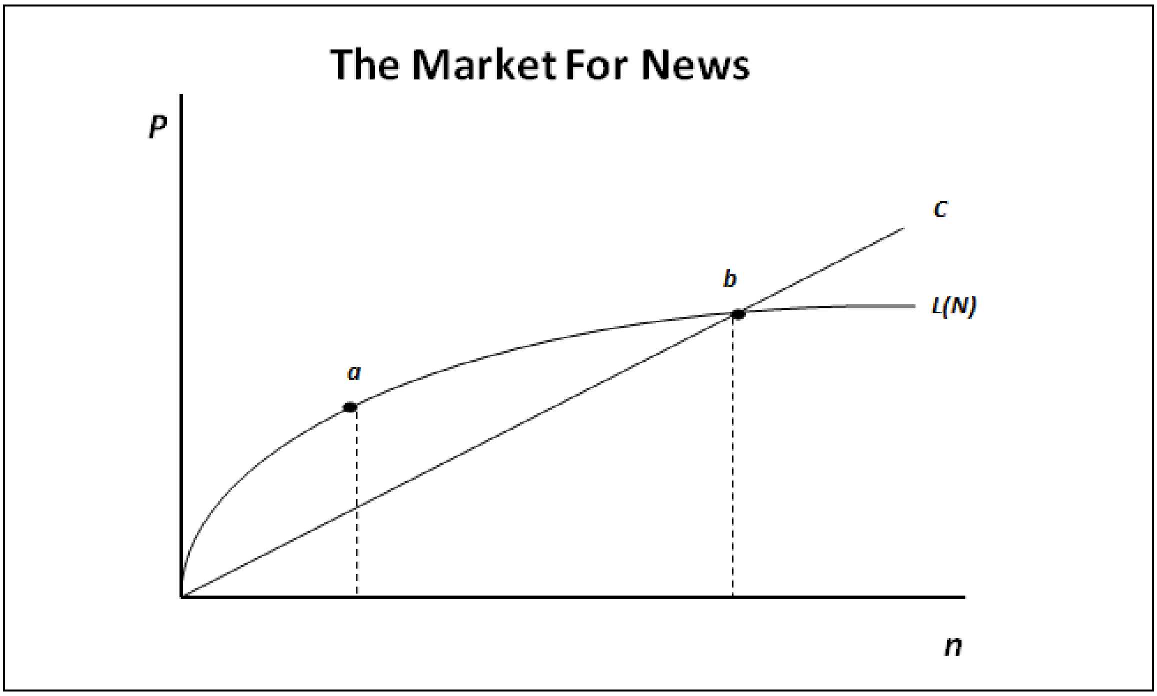


**Figure 2 The market for common pool news: A familiar graph, showing the dissipation of rents caused by an overproduction of common pool news.**

Since each firm considers only the private implications of its actions, and not the social ones due to the lack of property rights already described, additional firms will report on a given subject as long as there is any positive profit to be made, that is, while $l \geq c(t)$. Let us keep in mind that the production decision facing a given firm is not an optimisation problem, since it cannot control the actions of other firms, *N* – it simply has the choice to report, or not to report. Firms will therefore continue to report until the market equilibrium is reached when marginal cost equals *average* benefit, $ct=L(N)/N$, at point ***b*** and not when marginal cost equals *marginal* benefit, $ct=L_N$, at point ***a***. Reaching an equilibrium at point ***b*** is a dismal conclusion, since all rent, that is economic profit or net-benefit, is dissipated along the way - ***a*** is clearly the socially optimal and preferable point, since ***a*** is where the difference between total costs and benefits is maximized. It is thus obvious that common pool news must be overproduced in absence of clearly defined property rights, causing the market to reach a suboptimal equilibrium.

**Figure 3 Outside an Icelandic courtroom: A typical media frenzy where a number of media firms ends up reporting exactly the same remark. An efficient allocation of resources?**

### 4.1.2 A sketch of a game theory approach

This situation could just as easily be described in terms of game theory, especially when it comes to important news subjects. Although this line of argument will not be formalised extensively, it is easy to see how. When faced with an important subject, every media firm would like to be the only one reporting it, and no firm would like to be the only one not reporting it.

They would particularly like to avoid the latter scenario since most media firms market themselves as a one stop shop for news. Ignoring an important subject could be seen by consumers as severe inattention, which would definitely be damaging to the firm‘s brand capital and thus decrease its long term profit, like described in subsection 2.2. on quality uncertainty. A dominant strategy for each firm will  become to report common pool news, especially if they are seen as being important.

This is why the Nash equilibrium in the reporting game will tend to be the suboptimal one; where all firms feel compelled to report, rather than not report, even though the revenue from observations of the marginal firm‘s report just barely covers its costs of production. We can go further still and imagine that the media firms will report beyond the point ***b*** in figure 2, since the cost of depleting their brand name capital in terms of a long term profit decrease might be greater than the loss from producing a report on the negative profit part of the *L(N)* curve.

Knowing that all economic profit from producing a piece of common pool news will be completely diluted in the process of overproduction, an additional concern is that the firms will try to minimise the time, or alternatively, the costs *c(t)* associated with reporting it. This means that a side effect of the lack of property rights is not only one of overproduction, but a deterioration of the quality of common pool news across all firm (at least given the assumption that the quality of a report is a function of the time spent producing it, *G(t)*). In other words, the size of *Nt* becomes larger than is socially optimal, while the size of *t* becomes too small.

Reducing quality in a race for rent is for example what happens during "Olympiad harvesting" of a limited total allowable catch (TAC) in fisheries, which is a term given to fishing in absence of allocation of quotas to individual firms (individual transferable quotas (ITQ‘s) which assign economic property rights to a quota), although the comparison is obviously less than perfect. Still, Olympiad harvesting is an extreme race between firms to reap limited benefits, which leads them to emphasise the quantity of their catch to the detriment of its quality, similar to common pool news (Sérfræðihópur skipaður af sjávarútvegs- og landbúnaðaráðherra, 2011).

### 4.1.3 Is it getting worse?

The overproduction of common pool news is probably as old a problem as the news media itself. It is however reasonable to assume that it has been getting worse over time. The reason is that inherent constraints on the number of firms operating in the media market have been continually disappearing in line with technological advances. In the 17th century, fixed costs, such as those associated with printing copies of newspapers, were prohibitively high (imagine the time spent rearranging moveable type), probably creating a sort of de facto natural oligopoly in the media market due to increasing returns to scale. Those technological constraints can be imagined as a ceiling of the overall number of firms in figure 4 on the next page, hindering the number of firms reporting any given subject reaching a point of absolute rent. These fixed costs have, however, been continually decreasing with technological strides of progress, and eventually almost disappearing with the advent of web based media. The number of firms, *N**, able to operate within the cost structure of the media market has therefore been continually growing; the ceiling is on a move to the right, causing inefficiencies to worsen.

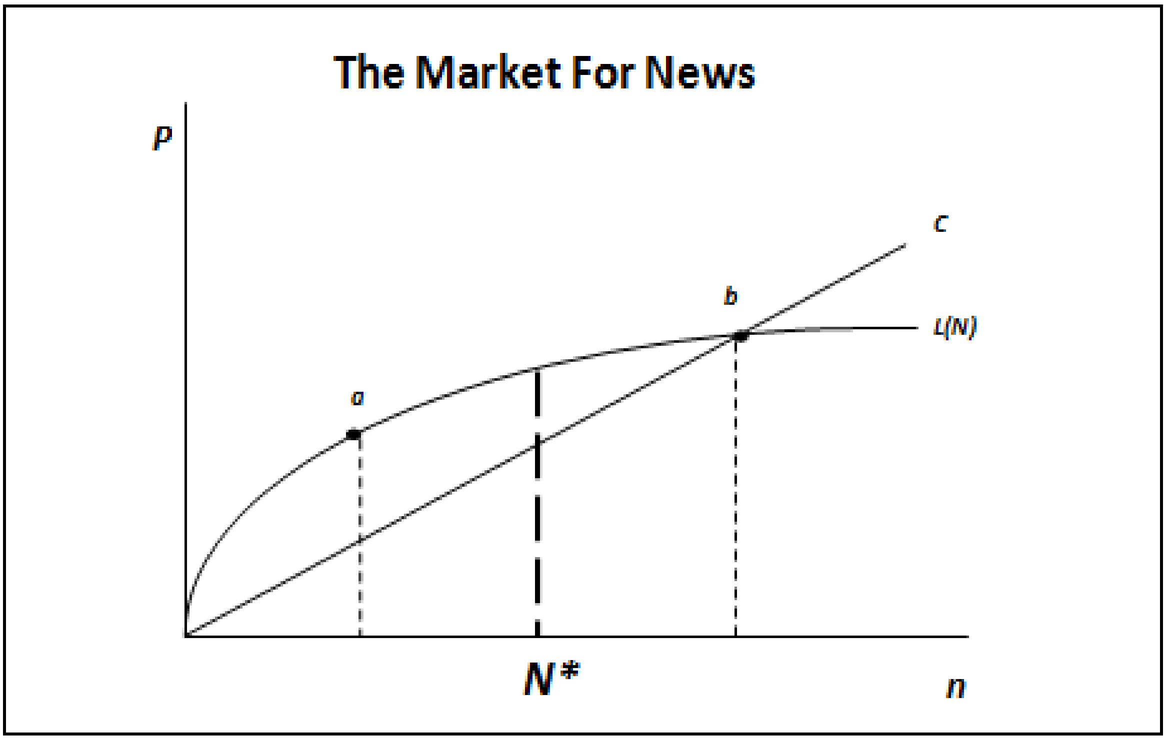


**Figure 4 The market for common pool news II: Technology erodes constraints on the number of firms able to operate within the media cost structure.**

### 4.1.4 Wire services

A counteracting mechanism limiting the waste of resources inherent in the model described above are news agencies, or wire services, such as Reuters, The Associated Press and Agence France-Presse. These are organizations of staff journalists, and sometimes contributing firms, who provide independent media firms with reports for a membership fee, often requiring little or no modification of their content prior to publication.

This might give the impression that common pool news produced by the agencies are in some cases de facto transformed into club goods, which should increase efficiency since the agencies can exclude non-members, establishing economic property rights and eliciting a revelation of the members' preference and valuation (Hindriks and Myles, 2006). The existence of news agencies should therefore mean that, at least in some instances, a single firm (the agency) expends resources to produce a report of a given subject so others do not have to. It sells the report on to other firms and thus reaps the rent. A portion of the production essentially requiring only a single journalist will be undertaken by *only a single journalist*, and so limits waste. But is that really the case?

A detailed study of the workings of wire services would be worthy of another thesis. Still, it should be noted that although they are definitely worth mentioning, wire services do not solve any of the fundamental externality problems of news production so the principles of the analysis remain valid.

Two issues make it particularly hard to recognise the agencies' contribution to efficiency. First, the reports produced by agencies are often either local or foreign, which means that the firms that eventually publish or broadcast them would not necessarily have carried the reports if it were not for the agency providing them. Independent media firms cannot negotiate amongst themselves beforehand to let the agency simply supply them all with the common pool news so they can concentrate their resources on reporting something more valuable – which is why all the largest agencies as well as several of the largest independent firms have reporters sitting in on White House press briefings reporting essentially identical news, to name but one example. This means that the core of our conundrum remains the same; even though the agencies constitute a pareto improvement (both the independent firms and the agencies are better off because of the transaction of news for a membership fee), they do not eliminate the overproduction problem, because they do not constitute a system of universal property rights.

Second (and this is the problem apparent in the case of INS v. AP and the subject of the next subsection), the legal property rights do not appear any more secure in the case of international wire services than they are in the case of individual firms. What comprises still another efficiency problem is therefore that non-members are able to free ride on agency originated reports by copying off member publications.

## 4.2 Scoops

A scoop is a report of an event, remark, situation or development apparent to only one, or a limited number of media firms, often with relevant information accessible to none other than them. A scoop can be the product of investigative journalism, data or other information obtained through private sources, an exclusive interview or any other news rooted in the firm's own *initiative and analysis*. Let us call it journalistic innovation – the product of which I shall define as *quality news*, since any attempt to quantify as subjective a concept as quality objectively is futile. It is easy to imagine some of the news classified this way being reported in the wake of common pool news as follow-ups, as long as they can add some relevant information not publicly available, or a perspective and scope unique to the firm in question.

In the case of scoops, economic property rights of firms are obviously more secure than in the case of common pool news. The reason is that the originating firm of a scoop is its sole economic proprietor as long as other firms have not responded to the new information presented by reporting it themselves. For the duration of that period, the originating firm is the sole seller of reports on a particular subject, and is therefore the only one able to collect the rents created by its journalistic innovation. Of course, this does not change the fact that the legal property rights are exactly as limited as in the case of common pool news. There is nothing stopping other firms from free riding on the originating firm's work by selling identical reports as their own, other than the speed at which they are able to copy the original information. But what are the methods of doing so?

For one thing, firms can use each others' reports as "tips" in their own reporting, to use the wording of the United States' Supreme Court. If the originating firm delivers a scoop with the confirmation of identified sources, other firms can easily contact the same sources, confirm the news independently and deliver what must essentially be an identical report of the subject in question. If the original report is rooted in remarks of an identified individual deemed relevant to the general public, other firms can contact the individual and persuade him to repeat the remarks materially for their publications.

Even when the originating firm‘s scoop is based on anonymous sources inaccessible to other firms, chances are they can somehow exploit the original report. They can, for instance, confirm the scoop independently through alternative sources, write editorials or seek reacting remarks of pundits (which can even be seen as a nothing more than a justification for copying the original report and thereby escaping the hot news principle, since the value added by garnering a third party comment is subject to doubt), and profit off the originating firm‘s product thereby.

When a media firm is in possession of a scoop, it can try its best to create a sort of lasting economic property rights over it before it is published by limiting other firms‘ possibilities of exploiting the report. This can, for instance, be done by ensuring that other firms will not be given access to whatever exclusive or confidential data the scoop is based upon. They can try and convince their interviewees not to grant interviews to any other firms or journalists; in other words to negotiate exclusive interviews, like is quite common in modern media.

One needs not look far to highlight how valuable the property rights to a scoop based on even a single interview are to the originating firm. Some established Austrian newspapers offered abduction victim Natascha Kamputsch vast sums of money for an exclusive soon after her escape from her captor in 2006; reportedly a lump sum payment of between €250,000 and €300,000 as well as a flat and a job. *Österreichischer Rundfunk* (ORF), the national Austrian broadcaster, ended up doing the first interview with Kamputsch, insisting it did not pay for it. ORF did, however, sell the rights to other outlets on Kamputsch‘s behalf, generating a whopping €600,000 (The Independent, 2006).

They collected such a large amount despite the fact that the property rights secured by owning the legal rights to whatever relevant material, such as the television interview with Kamputsch, are less than perfect. There is nothing effectively stopping other firms from (there is no way of putting this nicely) stealing bits of the report – that is, copying it directly from the originating firm, without having any independent sources whatsoever. One can, for example, simply look up the coverage of newspapers and web-based media firms all over the world at the time of airing of the Kamputsch interview. Other firms simply scripted and published the highlights of ORF‘s interview in

2006, diluting the rents created by its production (which is actually not an uncommon practice when it comes to big news).[4] Not having the rights to the original footage did not make much of a difference. When it comes to news, most often it is the content and not necessarily the form that counts, like explored in section 3 on property rights and news.

Viðtal við Kampusch birt

Vísir Erlent | 06. september 2006 23:15

Líkar þetta

Fréttir Sport

1 Dorrit með ADHD

2 Ráðherrar í lögreg

3 Sivirkni á Facebo sjálfhverfu

Horfa á myndskeið með frétt

"Fannst ég vera sterkari en hann"

Kampusch lýsir martröð sinni í leyniklefanum sem var falinn undir bílskúrnum heima hjá Priklopil

Hún þótti ákveðin í fasi og fjölmiðlar sögðu hana hafa ýst reynslu sinni af yfirvegaðri nákvæmni. Að sögn ORF-sjónvarpsstöðvarinnar þurrkaði hún augu sín af og til vegna þess að þau höfðu ekki aðlagast birtunni. Reynsla hennar er sögð hafa snert milljónir samlanda hennar.

"Allt frá fyrstu mínútunni [...] var ég ekki hrædd, heldur þvert á móti hugsaði ég; hann mun drepa þig hvort sem er svo að þú getur notað síðustu mínúturnar eða klukkustundirnar til að gera eitthvað, til að flýja eða til að tala við hann."

[ Smellið til að sjá stærri mynd ]

Viðtal við hana var einnig sýnt í austurríska ríkissjónvarpinu, ORF, í kvöld. Þar sagðist hún hafa óttast gíslatökumann sinn, Wolfgang Prikopli, svo mikið að það hafi komið í veg fyrir flestar flóttatilraunir. Hann hafi hótað því að myrða nágranna sína, þá hana og loks svipta sig lífi ef hún reyndi að flýja.

Kampusch slapp úr haldi mannræningjans í síðasta mánuði þegar hann leit af henni. Prikopli svipti sig þá lífi og er Kampusch sögð hafa syrgt hann eftir það.

Natascha sagðist ítrekað hafa reynt að gefa vegfarendum í skyn með augunum að hún væri í haldi þegar hún og Prikopli fóru út fyrir hússins dyr, enginn hafi hins vegar veitt því athygli.

**Figure 5 Copying foreign news: Minutes from the airing of ORF's interview with Natascha Kamputsch, the Icelandic media had published in detail what she had said - along with numerous others firms around the globe.**

Apart from exclusivity of interviews or data, there are not many institutions or norms in place to discourage the sort of blatant copying apparent in the Kamputsch case. I mentioned the hot news doctrine earlier, in tandem with which a very mild deterrent norm has evolved among journalists; to cite the originating media firm when copying its

[4] Being a public service media firm funded by television licensing fees, ORF probably didn‘t lose much sleep over this. The principle illustrated, however, remains valid – especially as far as the secondary firms airing the interview after purchasing the rights from ORF are concerned, since they douldn not collect all the revenue from their purchase of the interview rights.

reports without independent sources or confirmation. Journalists and media firms are reluctant to cite their colleagues (probably because of a decrease in brand name capital due to what is thereby impressed upon the consumer; *the other firm is more alert than my firm*), so this norm acts as a property rights enhancing repellent of copying, albeit a limited and weak one.

The only property rights that come close to being durable are those secured when the form of the news is more relevant than its content, and the form is somewhat tangible. Let us imagine, for example, footage of the United and American Airline carriers hitting the twin towers in New York on September 11th, 2001. In that case, what is newsworthy is the footage itself, since any attempt to merely describe the event would provide consumers with a highly imperfect substitute to actually seeing the footage. Most consumers would, in other words, strictly prefer watching footage of the event to reading a journalist‘s description of it. Footage or photographs are more tangible than facts, the usual stuff of news, and thus easier to define legally as intellectual property. News rooted in such material can therefore be viewed as having more secure legal, and thus economic, property rights than they otherwise would; at least when written descriptions of its subject cannot easily serve as substitutes. If there would have been only a single tape of the September 11th attacks, its originator would have therefore become a wealthy man[5]. Any unlawful copying of footage or photographs is a much more explicit breach of copyright than simply quoting another firm on a particular subject or set of facts. Violators can be, and regularly are, prosecuted for damages, which clearly acts as a deterrent to secure property rights.

Apart from this, it should again be clear from the discussion above that the main limitation to a media firms‘ economic property rights of a scoop is simply the time it takes other media firms to copy and disseminate it one way or another. Up until that point, the originating firm is the sole supplier of reports on the subject in question, and no longer. This line of reasoning might sound alien when it comes to a production of news, but it should be quite familiar to anyone who has ever studied intellectual

[5] Again, this example should be viewed only as an attempt to illustrate a principle. Since the terrorist attack on 9/11 wasn‘t anticipated, any footage was merely captured by chance – no one made a conscious investment to originate a piece of news by taping the moment of impact.

property rights in a slightly different setting; patents in the market for pharmaceuticals. The patents ensure that a firm investing in the development of a new drug is able to recoup its investment, since during the patent period, it is the only producer of the drug. Awarding the firm a monopoly on its innovation is, of course, statically inefficient, since it makes it possible to charge a higher price, $\boldsymbol{p_1}$, than the marginal cost of *c* (or put differently, collect monopoly profits). This, however, is what creates the incentive for pharmaceutical companies to innovate in the first place, so patents actually constitute a trade-off between dynamic and static efficiency. The latter is achieved later, when the patent expires and enters the public domain, and the price becomes equal to the marginal cost when all firms are able to enter the market and produce the drug competitively (Léveque and Méniére, 2004).

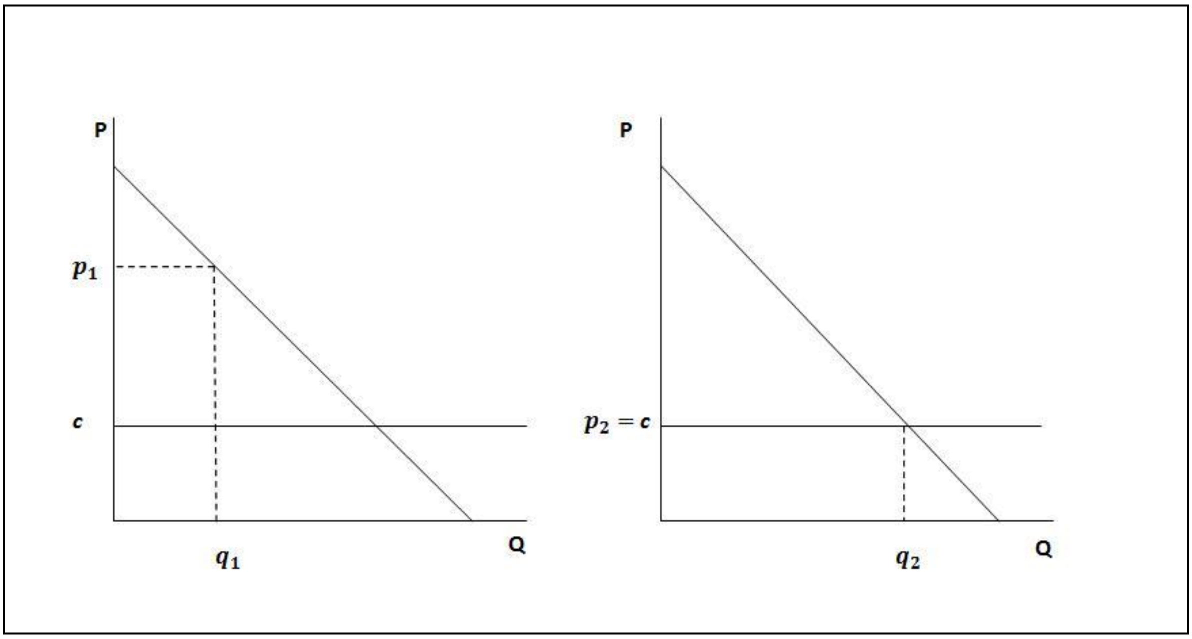


**Figure 6 Production with and without a patent: On the left, a traditional model of a monopoly, representative of how a pharmaceutical firm prices a patented drug, or how a media firm collects rents of a scoop while no one else has copied it. On the right, a competitive equilibrium where price equals marginal cost.**

The comparison of the pharmaceutical situation to the production of news illustrates an extremely important principle. What makes it worthwhile for any firm to expend resources to innovate is the prospect of making economic profits. Scoops are no different; the prospect of being the first and only firm to report a juicy scoop is what drives firms to invest journalistic resources on investigation and analysis, even though it is costly. When property rights over particular news subjects are lacking, this incentive breaks down. As soon as a piece of news enters the public domain, everyone can report it, so a part of the benefit created by the originating firm of a scoop invariably gets collected by other firms free riding on its work. This poses some problems, since the optimal equilibrium mandates that the parties to any given transaction absorb all costs and benefits associated with it – or in the words of Yoram Barzel (1997):

> The ability to receive the income flow an asset generates constitutes part of the rights over it. The value of an asset is lowered when non-owners are able to affect its income flow without bearing the full costs of their actions. The maximization of the net value of an asset, then, involves the ownership or ownership pattern that can most effectively constrain uncompensated exploitation.

In other words, when the originating firm cannot collect the rents associated with the benefits created by its journalistic innovation, the market is in effect telling it the scoop is worth less than it actually is, causing an underproduction of scoops. Alternatively, the scoop could be stated as inflicting positive externalities on other firms. But how big a problem is this? The answer is, it depends *when* in history you'ʻre asking.

Much information has the property that its value falls quickly as time passes, this being especially true for news. This trait of news is the reason why many people pay to get the most recent edition of a newspaper delivered to their door, but they would not contemplate paying for yesterday's issue. Furthermore, the extreme time sensitivity of news means that in most cases a media firm needs only a short period of secure economic property rights as the sole supplier of a scoop to recoup its expenditure on producing it and collect the lions' share of the rent – probably not more than a few days. This was in fact the case during the advent or golden age of printed media. Since newspapers were published in discrete time on a semi daily basis, no firm could copy a scoop from someone else until the next edition was printed – at which point it did not serve much purpose since the originating firm had collected most of the rents associated with the scoop by being the only one supplying it for a whole day or two. Consumers were therefore forced to buy news from their originator, which meant that economic property rights were secured due to technical restrictions – they served as a sort of economic patent, albeit not a legal one. This period of secure rights has, however, been gradually shortening in line with advances in information technology to the detriment of innovation, same as would happen if patent durations were severely cut. A closer look at a brief history of the mass media from the property rights standpoint already described will help to fully grasp how.

### 4.2.1 A brief (and quite simplified) history of the mass media

A prerequisite for the evolution of a mass media was the invention of the movable type and printing press in approximately 1450 by Johann Gutenberg of Mainz. Printing spread fast through Europe in the next fifty years thanks to a Diaspora of German printers, but it was at first utilised mostly to print books. It was not until the 16th century that newspapers emerged. The European centre of this new literary genre in the beginning of the 17th century was Amsterdam, where papers printed one to three times a week were published in Latin, French and English, as well as Dutch (Briggs and Burke, 2005). This meant that the period of (more or less) absolute economic property rights, that is, the period the originating paper was the sole provider of a selection of scoops, lasted for two to seven days. Because the value of news decreases extremely rapidly with time, this period was probably more than long enough to collect the relevant rents created by the journalistic innovation of the originating firm. Each firm's monopoly on its scoops might have created a static inefficiency, but there is reason to believe it provided the incentive to innovate, thus proving dynamically efficient within the market structure of the time.

As the 17th century passed, the centre of newspaper publishing moved to London. It has actually been said that the outbreak of the Civil War and the "newsbook" in England coincided, with an explosion in the number and scale of media firms, (although the proliferation of competing newspapers was temporarily slowed by the *London Gazette*, an official newspaper in the spirit of the Soviet *Pravda*) (Briggs and Burke, 2005).

In order to avoid a lengthy discussion of historical developments essentially irrelevant to the scope of this thesis, let it suffice to say that newspapers spread from there during the next couple of centuries without any major alterations to their basic form or operation. Sure, the industrial revolution lowered the costs of printing dramatically and strides in communications, such as the telegraph, lowered the costs of disseminating information across distances, but this did not change the fact that newspapers were still published in discrete time[6] and financed through subscription, single copy and advertisement sales that depended directly or indirectly on readership. During that time, economic property rights over scoops were protected by technological constraints, since competitors could not copy news until their next issue was published and the value of the information had usually diminished greatly, protecting the originating firm‘s property. What is more is this encouraged firms to add value to reports of originating firms if they were going to follow up the next day; it was a phase of *cumulative* journalistic innovation.

The frequency of publication increased over the period, but never beyond the point of new issues appearing daily. Although this increase lessened the extent of the economic property rights of the originating firm, it probably did not pose a serious efficiency problem – although it is impossible to evaluate for certain. What is clear, however, is that subsequent developments would slowly eliminate any notion of economic property rights over scoops.

For a period starting in the late 19th century, many papers were published in the afternoon, aimed at commuters, which meant that the morning papers only held the property rights to their scoops for half a day, instead of a whole day, and vice versa. This was the beginning of a slow erosion of media firms‘ property rights over their scoops. Starting in the 1950‘s afternoon papers started losing ground, and most of them have since gone bankrupt, been changed into or merged with morning publications, which is generally accredited by the most part to the rise of radio- and television news (Morton, 1991).

[6] Like we saw in the case of INS v. AP, things were not always quite so simple. Firms on the west coast of the US, for example, could reprint news from the east coast by means of telegraphing or –phoning them across the country due to the time difference. This, however, was an exception since most countries do not stretch across several time zones. Additionally, phoning news across time zones did not pose as serious challenges to independent media firms as it did to wire services, since the former mostly operated locally. In other words, firms on the east coast were not in direct competition with firms on the west coast, so they were not losing chunks of revenue to their competitors – although if other firms were free riding on their work, the resulting positive externalities would definetaly be indicative of underproduction no matter where in the world the copyers were operating.

Broadcasters such as radio and television firms were actually the next challenge to property rights to arrive. Radio stations began springing up on both sides of the Atlantic during the roaring twenties; the British Broadcasting Company (BBC) operating as a monopoly in Britain, and a large number of all sorts of independent private stations in the US. Most of those would actually fail, with powerful networks such as the NBC and the CBS emerging to take over a large portion of the market. Advertising soon became the financial dynamic of radio in the US, providing both giants and dwarfs alike with revenue, once again proving that commercialisation of information is no new business[7]. News was first broadcast by the BBC as soon as 1922, when Arthur Burrows read a six o'clock news bulletin at two speeds, both slow and fast. It appears that the use of radio as a news outlet was slow to catch on, though. News programming did not garner a large audience at first, which proved to be a larger concern in the US than in the UK due to the commercialised nature of US radio. Lowell Thomas started reading the news routinely on NBC in 1930, but it wasn't until 1934 that it became a regular item on the schedule, usually "in headlines and snippets" (Briggs and Burke, 2005).

Since news could be broadcast on the radio during any time of the day, the technological constraints making publishing a discrete process and thus securing property rights of newspapers became blurred, since any scoop could be at least partially copied by radio news within hours of being published by its originator. What served to counter this effect, however, was the fact that radio offered imperfect substitutes to news in print. A report on the radio news is generally shorter and less detailed than its written counterpart. Nevertheless, this development eroded property rights further.

A second and similar development was the emergence of television news programmes a few decades later. They provided another imperfect substitute to printed news, and vice versa, since written reports of subjects often gave a more thorough account of any given subject, but were not fully comparable with actual footage in some

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[7] People were just as wary of it then as they are now. In 1923, Herbert Hoover, then Secretary for Commerce, declared it "inconceivable that we should allow so great a possibility for service and for news and for entertainment and education, for vital commercial puposes to be drowned in advertising chatter" (Briggs and Burke, 2005).

instances (think of the 9/11 example named earlier). Due to imperfect substitutability, it is hard to evaluate the impact on property rights, but they probably decreased further simply because TV news outlets constituted yet another set of agents both originating and copying news at different intervals than the ones already in place, reaping parts of the benefits. This effect was further exacerbated by the advent of 24 hour news channels in 1980, when CNN became the first to broadcast reports around the clock (CNN changed news, 2005) The news cycle was no longer a discrete variable, but a continuous one.

What really eroded the economic property rights secured by technical constraints was the Internet. The Internet has in the last ten years or so provided a much less imperfect substitute to all the kinds of platforms for news mentioned above than they did between themselves since web based media came to provide an outlet for written news, soundbytes *and* videos. What is more, it does so in continuous time, with extremely low fixed overhead costs compared to the other types of media, and a zero marginal cost of distribution. The period of relatively secure economic property rights has in a matter of centuries gone from being almost a week long (more than enough to collect the rents from journalistic innovation due to the extreme time sensitivity of news) to only a few minutes.

Today, news therefore has all the characteristics of what Rayna (2008) calls a digital good, although he mostly explores digitalism in a different context; its effect on artistic information goods such as music and movies as well as software, and not on news. Some of his analysis is nevertheless applicable in the case of news. He points out several problems facing information goods gone digital, the biggest one being free riding. Like mentioned earlier, free riding becomes rational behaviour since a digital good is in effect a public one – with the internet news has become completely non-rivalrous and non-excludable due to the sort of copying and subsequent loss of property rights this thesis has been exploring, so the private provision of scoops is doomed to be less than what would be socially optimal or efficient.

### 4.2.2 Two simple models of scoops

In order to formalise the proposition made above, I shall adapt two somewhat equivalent models of externalities and public goods. Both should look familiar to anyone who has taken an intermediate public economics course.

The first is a simple and accessible model of what happens when firms take note only of the private costs and benefits of their actions, and not the social ones. In the case of news, this happens because the originating firm is not the only one collecting revenue from the scoops produced by its journalistic innovation, since all who copy them benefit as well. The marginal revenue influencing the production decision of the originating firm only reflects its own *private* benefit however, causing news to be underproduced. This is an equivalent way of stating that the originating firm is creating a positive externality it will not be compensated for.

This situation can be seen in figure 7, where the *MC* curve reflects the marginal cost of producing a scoop, *S*. It is flat, since the previous assumption is maintained that the cost of producing a report is solely a function of the time spent writing it and that journalists operate on a fixed wage. To simplify matters, scoops are not considered to be differentiated with regard to labour intensity in this model, so each scoop requires the same amount of man-hours to produce. Perhaps a more realistic assumption would be that the *MC* curve is upward sloping, since journalists might tend to write scoops requiring the smallest amount of effort first, before moving on to subjects requiring more intensive analysis and investigation. It should be noted that such an assumption does not change the qualitative predictions of a model assuming a flat *MC* curve.

What matters is that scoops provide decreasing marginal revenue for the firm, since the first ones produced by journalists on any given day are the most interesting, pressing and important and elicit the greatest willingness to pay. They get continually less interesting and pressing, and so provide the firm with fewer observations, less enthusiastic readers and thus less sales and advertisements. A gradual decrease in the importance of news tackled by the firm is the reason the *PMR*, or private marginal revenue curve, is downward sloping. What might seem puzzling is that the *PMR* curve is non-zero at all, since public goods cannot, in theory, be traded, and therefore should not be produced. The reason, like mentioned earlier, is mainly that even though consumers are not willing to pay for news, their observations of them make it possible for firms to sell advertisements. In addition, consumers are more likely to weakly free ride and pay some suboptimal amount for the provision of news, than free ride completely. Another factor is that the publicness of news is not always perfect; in other words, copying news might in some instances create imperfect substitutes to the original, which provides some limited market power to the originator of the story in question.

The *SMR*, or social marginal revenue curve, can be viewed as the sum of the private marginal revenue of the originating firm as well as those of the copiers, that is, the marginal external effect. Since the externalities are positive, the *SMR* necessarily lies above the *PMR.* A Pareto-efficient solution would be achieved where the social marginal benefit is equated with the marginal cost of production. It fails to do so, however, since the originating firm does not account for the positive externalities when making production decisions. The firms in the economy end up producing $s^0$ units of scoops per time period, let us say within a day, instead of the optimal $s^*$. The two curves can be thought of as moving further apart as property rights are less perfectly delineated.

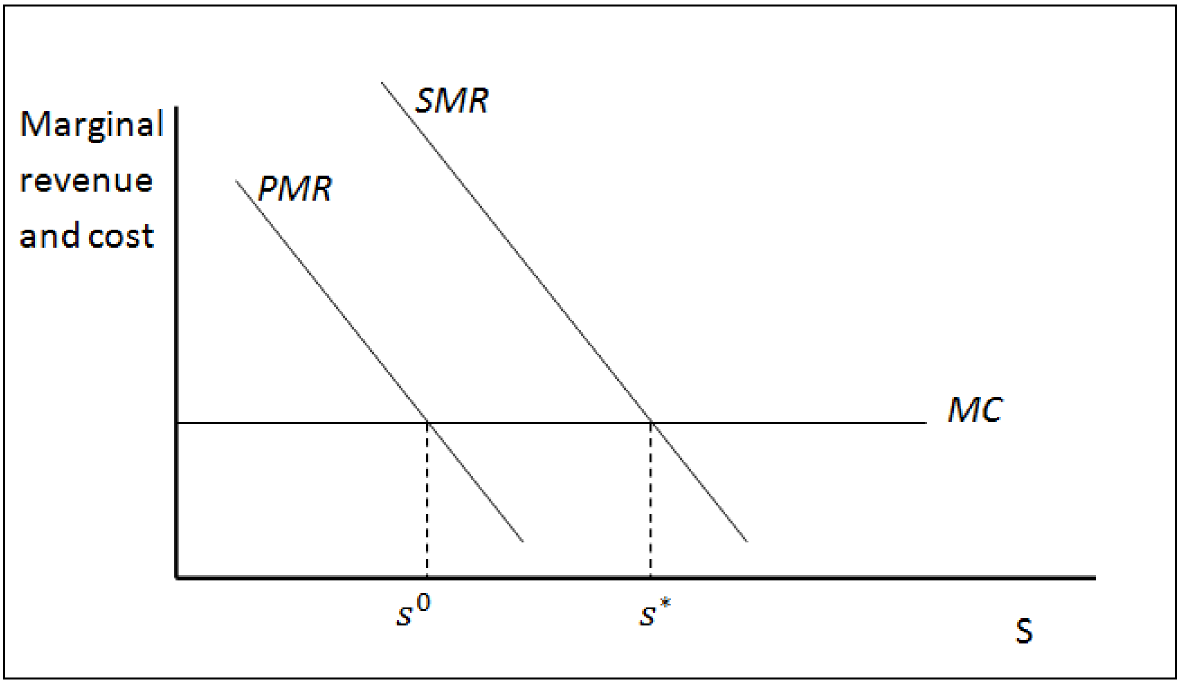


**Figure 7 The market for scoops: The effects of deviation of private from social revenue. Externalities cause underproduction.**

A different way of looking at the same problem is examining it from the standpoint of each firm‘s hiring decision. This might actually be a more realistic approach (even though I shall keep the model quite simple) since journalists are hardly concerned with collecting rents when making decisions on the production floor. After all, they operate on a fixed wage, so they should not care too much about the reduction in their overall revenue contribution due to copying – at least not enough to reduce scooping[8]. An important reason is the by-line, which serves as an incentive-compatible institution to promote scooping and innovation within the ranks of journalists employed at each firm.

The by-line can do so quite effectively, because unlike a plumber or a carpenter, technological strides in IT have made journalists able to (in theory at least) supply an infinite number of consumers with reports simultaneously, each one observing the quality of their reporting. With the by-line in place, this means that any reputational effect of either good or bad reporting on the part of the individual journalist will not only affect his employer‘s brand name capital, but also himself and his own reputation, and what is more – it will do so fast and effectively. Just think of all the anchors, television personnel, news executives et cetera, which have lost their jobs due to one mistake, or a slip up when they thought their microphone was turned off. When consumers know which journalist is responsible for reports, they must shoulder the full burden of substandard reporting, both professionally and even financially, and are thus faced with a powerful incentive to deliver quality – that is produce scoops and innovate.

A media firm therefore does not necessarily have to pay efficiency wages to elicit quality journalism from its employees. The by-line does the trick. The same sort of effect should be observed from the requirement of TV correspondents to dub their own news or appear in stand-ups. Whatever form the by-line takes, it directly links the interests of journalists to the quality of their work, so they should not decrease efforts directed at the production of scoops despite the revenue being collected by a number of other firms. Where, then, do the externalities enter into the production decision?

[8] They will, however, quite likely get annoyed at their colleagues at other firms. This is more likely to cause them to beat their breast at the watercooler than to decrease production of scoops.

A reasonable approach is the one suggested above; to assume that the externalities cause an underemployment of resources at the hiring level. To see why, let us assume there is a two firm media market. The firms are identical and each of them produces scoops with a strictly increasing, strictly concave revenue function of production, *R=ln(*$l_i$*),* for each firm *i=1,2,* where *l* denotes the amount of labour, or journalists, employed in scooping. This can be interpreted so that the production of scoops is a linear function of labour, and that scoops have a downward sloping marginal revenue curve for the same reasons as before. The cost of labour is simply the going wage, *w*, which is exogenous since both firms are assumed to be small employers relative to the labour market. Lastly, scoops are assumed to have some characteristics of a public good. Both firms can copy the other's scoops for free as soon as they are published, and thus collect half of the revenue that scoop creates – in other words, the firms split the revenue from each other's innovations.

The firms choose labour inputs to maximise profits, so the maximisation problem facing the each firms can therefore be stated as

$$\max_{l_i} \Pi_i = \frac{ln(l_i)}{2} + \frac{ln(l_j)}{2} - wl_i$$

The reason the revenue functions of the firms should be stated as two separate terms (ln($l_i$) + ln($l_j$)) instead of one (ln($l_i$+$l_j$)) is that the firms are comprised of distinct sets of journalists with different talents, fields of interest and innovative dynamics, so the first scoop of firm 1 might be completely different than the first scoop of firm 2, but just as valuable. In other words, the scoops of the two firms do not collectively reap marginally decreasing revenue, although they do separately because of limited substitutability between their scoops (one firm can be thought of as producing political scoops and the other producing business and finance related scoops). The optimality conditions of the model become

$$l_i = \frac{1}{2w}$$

It should be noted that as more firms are copying and collecting revenue from each other's innovations, the number of journalists employed must fall (imagine the denominator growing larger). Now, let us compare the optimality conditions in a market where each firm copies the other for free to the ones prevailing when the firms collect *all* the revenue from their journalists' scoops, i.e. the Pareto optimal equilibrium when there are no externalities. That equilibrium can be found by simply maximizing the sum of both their profit functions

$$\max_{l_i, l_j} \Pi_i + \Pi_j = ln(l_i) + ln(l_j) - wl_i - wl_j$$

which yields the optimality conditions of

$$l_i = \frac{1}{w}$$

Since $\frac{1}{w} > \frac{1}{2w}$ resources are clearly being underemployed in the production of scoops, and overall welfare would be improved if each firm realised the total benefits it is creating by investing in journalistic innovation. Further insight can be provided by inserting a sort of property rights coefficient, $0 \leq \alpha \leq 1$, which measures the ease and speed with which either firm can copy the other's reports and publish as its own, 0 being indicative of no property rights and 1 being indicative of perfect property rights[9]. By doing so, the profit maximisation problem becomes

$$\max_{l_i} \Pi_i = \frac{(1+\alpha)ln(l_i)}{2} + \frac{(1-\alpha)ln(l_j)}{2} - wl_i$$

yielding the optimality conditions of

$$l_i = \frac{1+\alpha}{2w}$$

[9] This approach is actually inspired by an exercise from the problem set at the end of chapter 5 on public goods in Hindriks and Myles' (2006) textbook on public economics.

which clearly means that as $\alpha$ approaches 1 and property rights become more complete, the employment of journalists will approach its efficient level. But how low is $\alpha$, and what are its exact effects in practice?

This is a very hard question to answer. I attempt to explain the effects of the internet on the “property rights coefficient“ in the next subsection, but it appears to have become quite low, which would suggest that too few journalists are employed in absence of some sort of government intervention. This seems to be the Icelandic experience exactly – media firms are undermanned and the time of journalists is not allocated as it would be under optimal conditions. Although it does not provide definite proof, especially since the small size of the Icelandic media market may influence how few journalists are employed at each firm, surveys on the views of Icelandic journalists and reporters toward their working environment seem to agree with the hypothesis that journalists are underemployed. They generally seem to think they work under stressful conditions and a lack of time, which means they do not get a chance to specialise in certain areas or become knowledgeable on the subjects they are reporting, which severely hinders their ability to provide critical constraint to governing bodies (Katrín Pálsdóttir, 2006; Friðrik Þór Guðmundsson, 2006).

## 5 The internet and quality news

I have already put forth the proposition that the internet is a major catalyst to the erosion of economic property rights over news. Frijters and Velamuri (2009) claim theirs is the first paper to examine the effect of the internet on the production of high quality news, which they essentially define in the same way as the scoops in the preceding framework; as the product of independent investigation and analysis - journalistic innovation. They provide an excellent overview of several trends in the media market, as well as some of the relevant literature on quality news provision. They also present a model which, although very interesting, has some unresolved deficiencies.

Their model separates the services of media firms into "news checking" and "news making", the concepts being quite vague. It focuses on the effects of bloggers copying reports, and search engines skimming media firms' profits. It explains the constraints on the extent of revenue loss due to bloggers' copying as the search costs levied on the individual reader trying to find a copy of reports on a relevant subject. By doing so, they ignore that established media firms also free-ride on each other's innovation. They ignore the fact that the rents collected by news originators are a function of their property rights; in other words, of the technical constraints making them the sole providers of the news in question for a period of time, and of the length of that period. The advent of the internet does not simply pose the challenge of groups of bloggers copying established firms reports like implied by Frijters and Velamuri's analysis. What it really does is further complicate the intricate interplay of several firms operating on different platforms all simultaneously originating and copying news, thereby diluting each other's property rights and creating huge externalities.

They conclude that the most significant effects of the internet is making many firms more dependent on advertising to recoup their costs which, although undoubtedly true, completely overlooks the fundamental failure of the market for news – namely that of externalities. Externalities mean that even though the originator recoups the costs of producing scoops, he is creating greater value than is reflected by the price he receives in the market place, and so under invests in journalistic innovation. They do, however, rightfully point out that the internet lowers the cost of providing quality news since fact checking and information gathering becomes cheaper, but that does not eliminate the central problem although it might mitigate it.

On the other hand, what might further exacerbate it is that relying *solely* on advertising distorts the signal of the price mechanism. The price mechanism influences news content in just the same way it influences the provision of other goods; it delivers a message of consumer preferences to producers. Historically, or before the advent of web news, media firms sold reports in bundles. The consumer bought a newspaper issue at a fixed price, which contained a range of reports on different subjects which provided different levels of benefit to different readers conditional on their preferences. By expanding readership, the media firm could collect higher advertising revenue, which would always be contingent on the same factors as its readership level – if no one is interested in buying a firms‘ publication, then certainly no one would be interested in taking out advertisements in it.

This provided a certain quality incentive to the printed media; it had to try and make sure that the sum of expected utility of each issue‘s reports exceeded its price for as many readers as possible. The expected utility depended mostly on the firms‘ brand name capital, i.e. its reputation, as well as the front page material. This might explain why firms reliant on single copy sales, such as tabloids, often have more aggressive front pages than subscription based firms. This incentive was also present in the case of news programming on television and radio, except the price paid is measured by the time spent watching or listening to it, since many news programmes are free of direct charge. Their consumer can choose to turn the television or radio off or change the channel in the middle of the programme, so their similarity to the printed media is less than perfect.

The price mechanism nevertheless provides these news producers with information, however limited, on *how much* utility or benefit their reports are creating. Since research cited in subsection 2.2. indicates that quality provision by a firm establishes elevated consumer expectation of utility from its news, and thus an increased willingness to pay for them, it should be in the interest of the media firms‘ to supply quality news, and innovate journalistically (Logan and Sutter, 2004).

It is a different story with firms operating online, since they do not bundle, but provide each report separately instead, in addition to mostly being accessible to everyone and free of charge. This means that the consumer‘s cost of observing a single report is miniscule; equivalent only of the time it takes to open the news and read it over. It should therefore be clear that as long as the marginal expected utility of a single report is non-zero, the reader will click on it irrelevant of whether the level of utility is high or low. For similar reasons, brand name capital matters less to web firms than to the printed press, since the cost of looking up a news outlet on the internet and skimming its headlines is so small that most consumers will disregard it if they have even the slightest expectation that doing so might bring them positive utility – which almost makes the brand name capital of the firm in question irrelevant as a quality signal. This is why it is fruitless for internet media firms to invest heavily in quality signals; they simply do not have to.

Given that advertisers focus mostly on readership levels, or alternatively on "hits", instead of the credibility or confidence of readers in firms, or the time consumers spend on their websites, the incentive facing the media firms is simply to maximise their readership or circulation. A report providing a thousand people a benefit of a single cent each will therefore be produced by an internet firm rather than a report providing five hundred people with a benefit of ten cents each. The former generates more hits, and therefore more revenue than the latter, despite the consumer surplus being five times greater in the latter case. What explains this behaviour is that a free web based news outlet has no means of collecting the extra benefit created by the latter piece of news. The behaviour is  a direct consequence of the limited function of the price mechanism facing web based media, because the actual readers of the news are not the ones paying for them. The revenue is contingent on hits, and hits only convey information on *whether* the consumer has any expected utility of a given report, but not *how much.*

The result could be termed as *the lowest common denominator effect*, since the media will tend to produce news with mass appeal, no matter how limited the consumer‘s willingness to pay for it is – just as long as it is non-zero. Due to incentives to get consumers to *hit* reports and not necessarily read them, at least in the short run, the lowest common denominator effect will also tend to limit resources spent producing news and introduce focus on attention grabbing headlines rather than content, both of which are to the detriment of quality. The firms publish statistics on how many observations individual reports generate, either officially or internally, so the journalists can see which of their writing is “most popular“. Being able to generate many hits is even seen as a desirable characteristic. A sort of indirect incentive to participate in the hit-race is therefore facing the journalists on the production floor, even without too much concern for quality if the by-line institution is absent, which is actually often the case online.

A lack of relative quality on the web is, at least partially, reflected in consumers‘ confidence in media firms. Three of the bottom four Icelandic firms in the media confidence poll of market research company MMR (2011) are internet firms, while only one of the top four is. In addition, consumers have a quarter less confidence in Vísir.is, a web based medium, than they do in Channel 2 News, despite being run by the same newsroom.

# 6 Media coverage of the financial sector: Some pre-crisis evidence from Iceland

It is possible, albeit extremely difficult, to estimate by empirical means whether externalities actually affect media coverage in the way described above. Such an estimate would require an analysis of a large sample of news over a long period of time, and the analysis would soon face various challenges. For one, in practice it can be quite difficult to classify whether pieces of news are scoops or common pool news. For instance, does a report on a common pool subject constitute a scoop if it adds some information to the information common to all firms? How much information would it have to add to qualify as such? In addition, it is quite hard to define an objective quality standard of news, since quality is first and foremost a subjective concept. Third, even though such research might be able to uncover a development over time that is consistent with the effects predicted, it would be almost impossible to quantify the externalities exactly. Having stated these difficulties in examining the property rights paradigm for news empirically, I now proceed to try to elicit what information is possible from the available data.

Let us summarise what the presented models predict: a) overproduction of common pool news at a minimum quality level, and b) underproduction of scoops, independent analysis and investigation. The problem is that the extent of over- or underproduction cannot be measured precisely, since it is impossible to know *exactly* what the optimal equilibrium looks like, although in theory it is clear what conditions would bring it about, namely perfectly delineated property rights. Nonetheless, a rule of thumb approach suggests that in any sample of news, we should expect to find a large number of short and slapdash reports stemming from only a few sources such as news releases or press briefings with little or no independent inquiry by the media firm, and a small number of thorough reports, based on many different sources and independent analysis.

No independent empirical research on news production was carried out in the course of writing this thesis, but what limited research is available suggests that there might be a grain of truth to the presented theory. At the request of The Icelandic Special Investigation Commission, The Research Centre on Media and Communication (Rannsóknasetur um fjölmiðlun og boðskipti), an independent research institution at the University of Iceland, performed a thorough analysis of media coverage on the financial sector in the run-up to the collapse of the Icelandic banking system in October 2008. It evaluated the quality of a random sample of 3.600 reports published in January 2006 through October 2008 in newspapers, television and radio. Each report‘s quality was quantified using two parameters; the amount of independent information gathering on the part of the media firm (estimated by the researchers as none, small, some or large), and the amount of critical analysis on its part (also estimated as none, small, some or large).

Even though the sample contains only reports on a relatively limited sector over a very short period of time, it clearly supports the hypothesis that a breakdown of property rights has a negative effect on media quality. The main drawback of the data is that it does not afford us an opportunity to trace the media market development over a longer period of time, and see if the quality of news has actually decreased as property rights have been eroded by technological advances. Whether that is the case is suggested as a topic of further research.

A large portion of the media coverage of the financial sector was based on sources provided by financial institutions themselves – they were in other words common pool news. Fifteen percent of the reports were based solely on press releases, and over a third of the reports cited a release as one of its sources. Researchers estimated that independent information gathering was small to none in four out of five reports. This was especially true of short single column news on the inside pages, which made up 62% of the sample and tended to be void of critical analysis.

A minority of the news was on the cover of newspapers, or covered multiple columns on the inside pages. These items were usually of greater quality. Only 7% of the multiple column coverages were estimated to be based on no independent analysis, and the more thorough the media analysis was, the more critical of the financial sector the news tended to be. This finding indicates that firms minimise the time spent on common pool news because of the rent dissipation discussed in section 4.1., for instance by reprinting short versions of written statements or releases, which weakens the critical constraint that the media can provide. When media firms know that they are dealing with common pool news they avoid detailed research and analysis which provides the subjects of the news with the opportunity to release biased information. This opportunity might very well be a contributing factor to why PR crisis management often entails trying to beat the publication of an adverse scoop by sending out a statement, thereby turning the scoop into common pool news. Doing so means that other media firms spend less resources on analysis and independent information gathering, giving the subject of the PR crisis increased control over media coverage.

It should be noted that in the specific instance of financial news, journalists might face cognitive problems as financial systems are prohibitively complex to understand, especially to non-specialised outsiders. A lack of understanding might manifest itself as a lack of independent inquiry and analysis, or at least contribute to it.

Even if the above data do not provide a conclusive answer to whether common pool news are overproduced and scoops underproduced, they definitely lend some support to that notion.

# 7 Possible remedies

What should be apparent from the preceding sections is that the absence of secure property rights constitutes a failure in the market for news which prevents its efficient provision. The next subsections addresses the inefficiencies associated with the two separate kinds of news in turn, and propose some remedies.

## 7.1 Remedies for the common pool news problem

I mentioned earlier that common pool news share several traits with common pool resources. A natural starting point of a search for solutions should therefore be the time honoured institutions put in place throughout the world to address tragedies of the commons; assigning property rights to private agents, the government or some sort of communal decision making body (Ostrom, 2008).

Just from looking at these proposals, it should be obvious that they carry over quite poorly to common pool news. Imagine assigning ITQ‘s to media firms whenever there is an important press briefing, or a government report or a press release is being published. The government would have to limit access to the relevant information to the highest bidders (or perhaps the most experienced reporters), which could then trade the right to report. Any infringements would have to carry severe punishments and be vigorously prosecuted to deter copying from the rightful owners of the news ITQ‘s. Aside from the absurdity of such a system of reporting facts, the cost of maintaining it would probably come close to exceeding the benefits. In addition, both the public and the media would probably consider it a draconian limitation to the freedom of expression to reserve public information for a limited number of firms, and bar all others from reporting it. Some sort of government provision would carry the same stigma. Imagine a government run media firm entrusted to report all “publicly“ available information, while barring every other firm to even mention it - all in the name of efficiency. Such an Orwellian cure might well be considered worse than the disease, and rightfully so. A communal solution would require the mutual coordination of all media firms, which is complex and costly. All of them would have to agree which firm or firms would have the right to report a particular news item. This solution would hardly work in practice, since new firms would find it beneficial to enter the market without heeding the communal administration.

There seem to be no easy ways to limit the wasteful behaviour of rational agents in the media market when it comes to common pool news. It should be noted, however, that this behaviour is nowhere near as serious a problem as in the case of actual common pool resources. Even though the rent is dissipated in the race to report, news is not a depletable resource such as fisheries or forests, so over-reporting will not affect future generations adversely as overharvesting does.

## 7.2 Remedies for the scoop problem

Like I argued earlier, scoops are the product of journalistic innovation which shares many properties with innovation in other sectors. What should therefore be the focus of attention are institutions already in place in other markets for innovations. The most obvious one is a more secure legal copyright than is now in place, but other alternatives suggested by Hall and Rosenberg (2010) et al. are prizes and subsidy schemes.

In theory, a stricter copyright legislation for news would ensure that the firm expending resources to innovate journalistically would reap the reward, thus creating an incentive to innovate. But copyrighting news is difficult in practice. For one thing, it would create a de facto ownership of facts, which is highly dubious in itself – even if the copyright was for only a limited time. For another, this solution poses some challenges when it comes to enforcement. What would establish copyright over a scoop? Simply being the first one to report it? Would common pool news be exempt from the legislation? Who should make the distinction between scoops and common pool news, and how? Aside from these questions, it should also be clear that in most individual cases, the revenue loss of the originating firm stemming from other firms copying their scoops is not substantial, although it certainly adds up. Firms might therefore be reluctant to challenge each instance of infringement in court, it being costly and time consuming, which might be the reason why the hot news principle has rarely been tested. A reluctance to challenge infringements in court minimises the effect of the copyright legislation, essentially making it useless for upholding economic property rights. What good are legal rights that are not worthwhile to enforce?

Even if copyright over facts, or individual subjects of news, was completely definable and enforceable, the question of feasibility would remain. Copyright constitutes a trade-off in the media market. Yes, firms would expend more resources on innovation, i.e. independent investigation and analysis, but clearly defined copyright would also mean that the scoops would be consumed by fewer people at higher prices. Giving firms a monopoly over facts is statically inefficient since news can be disseminated at a marginal cost of zero, but also because information and news are a public good like I described in section 2.3. Universal access to information should be a goal in and of itself, since it benefits everyone when citizens are informed. This trade-off should be a consideration.

To avoid using monopoly pricing to incentivise innovation, the government could award prizes to journalistic innovators. This has been suggested in the case of patentable innovations, usually using complex mechanisms like patent (or in the case of news, copyright buyouts (Hall and Rosenberg, 2010). Buyouts involve the government buying patents from their holders and liberalising the production of the patented innovation or product. This might be very difficult in the case of news, both because of problems with defining copyright, as well as the extreme time sensitivity of scoops; if the copyright buyout is not contracted immediately, the originating media firm would be just as well off with only the copyright, and the consumers of news as badly off. Since copyright buyouts are therefore out of the picture, a prize awarding mechanism would require some government body to pick winners arbitrarily, which assumes government officials to have information on the operations of media firms, market conditions and consumer preferences that they simply do not possess. On top of that, the government giving out prizes to stimulate scoop production always runs the risk of turning into a tool to exert influence on media content, and favour less critical media. This would be contrary to the intended goals of such a prize.

A related approach is simply to subsidise the media one way or another; after all, a Pigou subsidy is in theory the simplest way of ensuring efficient provision of a good that has positive externalities. This can be thought of as the private marginal revenue curve being shifted up to the position of the social marginal revenue curve in figure 7. By subsidising media firms, all ambiguity as to how copyright over facts should be defined and how to enforce it would be avoided, as well as having to restrict access to information by establishing monopoly power over it.

Subsidies are, however, not a perfect solution. The risk of them turning into a tool for governments to control the media is still present, and the information limits of officials are just as obvious as before. To search for ideas of how to efficiently promote scoops, I now look at various schemes of media subsidies across Europe.

# 8 Media subsidy schemes in western Europe

Most developed countries provide some sort of public support to media firms. A report by Nielsen and Linnebank (2008) provides an overview of public support for the media in six countries: Finland, France, Germany, Italy, United Kingdom and the United States. They find that most of them fund some sort of public service media using television or radio license fees, as well as providing indirect press subsidies to private firms using VAT exemptions or reductions on single copy sales, subscriptions and even advertising sales in addition to reduced postal rates etc., mostly for newspapers. None of the countries have very sophisticated direct subsidy schemes however, the schemes being mostly targeted at minority language newspapers or other agenda.

This section expands on the information provided in the report of Nielsen and Linnebank by presenting a short overview of the most recent information on public media support in six additional countries. They all share some aspects with the ones covered by Nielsen and Linnebank, while a few of the countries additionally provide advanced direct subsidy schemes for commercial media firms. By exploring these schemes further, some interesting contributions can be made to the general discussion of subsidies.

I gathered information by sending a short questionnaire by email to ministries of culture and/or media committees in each of the countries asking questions concerning the rationale for providing public media support, as well as how it is constructed. Nielsen and Linnebank categorised public media support into three types; public service media funding, indirect subsidies such as a VAT exemption, and direct subsidies. The information requested was largely based on this categorisation[10]. Let us look at each country in turn to get a feel for how the subsidy schemes already in place function,

[10] The exact questionnaire is reprinted in Appendix 1. Below I reproduce slightly modified and standardised versions of the answers received from each country, which were provided by the contact cited at the beginning of each subsection unless otherwise noted.

before drawing some conclusions and devising further recommendations on the optimal scheme design.

## 8.1 Sweden

### 8.1.1 Why support the media?

The overall objective of the Swedish media policy is actually not cited as being efficiency concerns, but a socio-political agenda: “To support freedom of expression, diversity, the independence and accessibility of the mass media and to combat harmful elements in the mass media.“ (Jon Dunås, Division for Media, Film and Sports, Ministry of Culture, Sweden, personal communication, February 3, 2012).

### 8.1.2 Public service media

There are three independent public service broadcasting firms operating in Sweden: Sveriges Radio AB (SR), Sveriges Television AB (SVT), which operates eight channels and is prohibited from advertising, and Sveriges Utbildningsradio AB (UR), which broadcasts educational and general knowledge programmes. The basic concept of these services is, according to the Swedish government, “to give everyone access to a broad range of television and radio programmes of high quality in all genres (Government Offices of Sweden, n.d.).“ In other words, their services are not limited to providing news, but a vast selection of programmes.

The firms are funded with yearly radio and television licence fees, in the amount of 2.076 SEK, which every television owner is required to pay. In 2011, their total revenue from the fees amounted to SEK 6.847 million (SR 2.569 million, SVT 3.952 million, UR 325 million).

### 8.1.3 Indirect media subsidies

The general VAT in Sweden is 25%. It is reduced to 6% for newspapers, as well as a range of other publication.

### 8.1.4 Direct media subsidies

There is a twofold direct subsidy system limited to newspapers in place in Sweden; one directed at production and another at distribution. The system is administered by the

Presstödsnamnden (Press Subsidy Council), a ten member committee appointed by the Ministry of Culture, which must always be chaired by a national judge.

Newspapers must fulfil a set of conditions to be eligible for the subsidies. The number of subscriptions must exceed 1.500 copies, their prices should not be kept lower than those charged by similar newspapers and its circulation should be no more than 30% of households in the place of publication. To qualify as a newspaper, a publication has to publish news on a regular basis, be issued at least once a week and have at least a 55% editorial content ratio of original and unique writing.

The level of the production subsidy is dependent on each firm's circulation and publishing frequency. A firm publishing up to two issues per week cannot receive a subsidy greater than 75% of its costs, and 40% for a firm publishing three or more issues per week. In 2010, 84 publications received production subsidies amounting in total to 502,8 million SEK. Each firm must report how it spent the subsidy.

The distribution subsidy is granted to co-operative distribution of two or more papers, and is regressive in the number of copies distributed, starting at 0,1 SEK per copy for the first 7 million copies and decreasing to 0,05 SEK. The total amount of the distribution subsidy was 66,8 million SEK in 2010.

## 8.2 Luxembourg

### 8.2.1 Why support the media?

The goal of Luxembourgian media support is simply to guarantee pluralism and safeguard diversity of opinion. Again, efficiency does not seem to be the biggest concern (Michèle Bram, Conseiller de Direction ère classe, Service des Médias et des Communications, personal communication, February 20, 2012).

### 8.2.2 Public service media

The scope of the public service media firms operating in Luxembourg is quite limited. There is one public radio station, as well as a TV station reporting from the country's parliament. A number of public service functions has instead been trusted to a commercial operator, CLT-UFA, a subsidiary of the broadcasting giant RTL (MAVISE, 2011).

### 8.2.3 Indirect media subsidies

Newspapers operate at a VAT rate of 3%, while the general VAT is 15%.

### 8.2.4 Direct media subsidies

There is a media subsidy scheme in place in Luxembourg available only to newspapers. A third of the annual subsidy is fixed across all publications, the rest is proportional to the number of standardised pages of editorial content produced by the firm in question, advertising excluded. The total outlays of the subsidies amounted to 7.385.000 EUR for 11 papers in 2011.

To be eligible for the subsidy, the publication in question must be published in Luxembourg by a Luxembourgian entity at least once a week without interruptions. It must employ at least five full time accredited journalists providing general political, social, economic or cultural information on national or international matters in one of the national languages. It should be financed primarily by sales or subscriptions, with advertising not exceeding 50% of its content. It must not be exclusively affiliated with any association or organisation.

The subsidy is administered by a council of six, which also serves the function of accrediting journalists. It consists of a chairman, two government officials and three representatives of publishers and journalists.

## 8.3 Switzerland

### 8.3.1 Why support the media?

The Swiss authorities believe that the media provides society with services that cannot be provisioned by a free market economic system; especially political information crucial to the political process and the democratic participation of informed citizens. That is the main reason for government intervention. While internet media services hardly ever receive any subsidies in Swiss, newspapers get little and mostly indirect subsidies, but public broadcast media get a lot of publicly raised money (Jost Aregger, BAKOM Media Research, personal communication, March 28, 2012).

### 8.3.2 Public service media

There is one public service media institution, the Swiss Broadcast Corporation SRG SSR. The SRG SSR produces radio and television programs in German, French, Italian and Rumantsch; that is, in each of Switzerland‘s official languages. The annual budget of the SRG SSR is about 1.6 billion CHF; about 70 percent of the revenues come from licence fees, 30 percent from advertisements.

### 8.3.3 Indirect media subsidies

The indirect media subsidies for newspapers are twofold. First, newspapers have a lowered VAT (2.5% instead of 8%). Second, regional and local newspapers as well as newsletters of non-profit organizations receive a reduction in postal rates. The lowered VAT is equivalent to about 60 million CHF per year, while the reduction in postal rates is equivalent to about 50 million CHF per year.

### 8.3.4 Other

Each year, 50 million CHF are allocated to local radio and TV stations from the radio and television licence fee income in order to support diversity and pluralism.

## 8.4 Belgium

### 8.4.1 Why support the media?

The main reason for public media support cited by Belgian authorities is that a free press plays an essential role in a democratic society. Moreover, it is their view that in small cultural communities (such as Flanders), the free market alone cannot guarantee enough variety in opinions, so public support is necessary, without interfering with the content of the media. (Flip Voets, Ombudsman en secretaris-generaal, Raad voor de Journalistiek, personal communication, February 22, 2012)

### 8.4.2 Public service media

Each linguistic region has its own public service media firm; the VRT in Flanders, the RTBF in the French speaking community and the BRF in the German speaking community. There is no licensing fee, so the lion’s share of their funding (around 250-300 million EUR) comes from each region‘s government budget, with advertising, sponsors etc. making up for the rest. Regional TV stations also receive heavy subsidies.

### 8.4.3 Indirect media subsidies

Indirect media subsidies are the most relevant and important to the Belgian media. The main contribution of the federal government is exempting newspapers and magazines from the standard 21% VAT rate. The postal rates are also reduced for distribution of newspapers before 8 am, which amounts to 100 million EUR each year. In addition, professional journalists enjoy reduced telephone rates and free public transport among other things, but it is difficult to evaluate their financial extent.

### 8.4.4 Other

There are all sorts of subsidy schemes in place in Belgium that do not directly have to do with firms' production but rather specific projects, such as training for journalists and subsidies for journalists' unions. A 250.000 EUR subsidy goes into a fund for investigative journalism, and 50.000 EUR are reserved for small media initiatives, such as websites and the likes.

In addition, the different levels of government spend more than a 100 million EUR on advertisements in the media, which is considered a form of support for the press.

## 8.5 Denmark

### 8.5.1 Why support the media?

The purpose of public subsidies for the Danish media is to support its role as a democratic institution providing citizens with essential information and education, and fostering a healthy democratic debate. The state run public service media also has a role in helping development and innovation in the media industry, without jeopardising the diversity of opinion (Gitte Østergaard, Konsulent, Center for Bibliotek og Medier, Kulturstyrelsen, personal communication, 31 january, 2012).

### 8.5.2 Public service media

There are two public service media firms operating in Denmark, DR and TV2, both which are funded with licensing fees. TV2 also collects advertising revenue.

### 8.5.3 Indirect media subsidies

Newspapers are exempt from the 25% VAT rate.

### 8.5.4 Direct media subsidies

Danish newspapers can apply for distributional subsidies of up to almost 30 million DKK per year. To be eligible, firms must publish five issues a week, have an editorial content rate of 50% covering a broad spectrum of current affairs, with at least half the editorial content dealing with political, civic and cultural themes and a third of it being original. A supplement scheme gives additional distribution grants to smaller, national newspapers with a high proportion of editorial content. Some grants are also available to special media projects.

### 8.5.5 Looking forward

A revision of the direct support system is being undertaken in Denmark. A committee has proposed three distinct models focused on subsidising production rather than distribution under the name of *Democracy grants*. The models differ mainly in whether they are platform specific or platform neutral; that is, whether they discriminate between newspapers, broadcasting firms and the web media. In any case, the eligibility criteria proposed are (Udvalget om den fremtidige offentlige mediestøtte, 2011):

> - Requirement for an editorial critical mass (3 or 5 editorial employees).
> - Requirements for media content, as regards the editorial content, it should primarily be related to politics and society possibly by treating one or more topics such as culture, health, business or science primarily from a political and societal perspective.
> - That the media must have a certain width in the target group, and that the media is required to have at least 50% editorial content and that at least a third of this has to be self-produced editorial content.
> - That the media must be independent of political parties and public institutions.

The key measurement criteria are:

> - Editorial work as defined by the instructions established by the committee.
> - A ceiling per title of 20 million kr.
> - A publisher ceiling of 20% of the total support scheme [combined level of support from both the main and supplementary scheme].
> - A maximum coverage of editorial costs at 35%.
> - A ceiling of 110% of the distribution support the publishers received, if any, under the current scheme.

## 8.6 Iceland

### 8.6.1 Why support the media?

Operating a public service broadcaster, Ríkisútvarpið, is the main form of governmental support of the media in Iceland, so its role as defined by law is synonymous with the reason for government support. RÚV's role is to foster the Icelandic language, the nation's history as well as national culture, to foster democratic debate and provide diverse quality programming and objective news.

### 8.6.2 Public service media

Every taxpayer, both persons and legal entities, must pay a lump sum of 18.800 ISK per year to fund the public service broadcaster in Iceland. It also collects revenue from advertising and sponsors.

### 8.6.3 Indirect media subsidies

Newspapers as well as some other publications operate at a VAT rate of 7%, while the general VAT is 25,5%.

## 8.7 Summary

All countries surveyed, except for Luxembourg, own and operate public service broadcasting firms. Luxembourg has opted to outsource public broadcasting via contract to an international commercial media conglomerate. All countries provide VAT relief to the media as a form of indirect subsidies, although this support is generally platform specific and aimed solely at the printed press. The same goes for the direct media subsidies in Luxembourg, Sweden and Denmark, which are primarily directed at the printed press.

# 9 Thoughts on an optimal subsidy scheme

The design of an efficient subsidy scheme for the media would merit a separate thesis. I will nevertheless try to use the preceding analysis as well as some ideas from the subsidy schemes already in place in Europe to make general recommendations concerning what an optimal scheme would look like. I will not go into details, and it must be emphasised that the system design will be optimal with regard to news production only. Subsidies will serve to correct for positive external effects by inducing firms to expend more resources on journalistic innovation. As section 7 demonstrated, efficiency concerns of this nature were not the main thing on the mind of European policy makers when they designed their press support schemes, although Swiss officials mention that a free market economic system is incapable of provisioning the important services of the media on its own. Aside from that, the agenda of most of the schemes is to foster pluralism and “democratic debate“, to provide education and vital information, and even preserve a national identity etc. I shall, however, continue to overlook the idea that diversity in the media market might be of value in itself and simply assume that in the presence of clearly defined property rights, profit maximising media firms would provide consumers with the optimal quantity of journalistic innovation and quality news, and no intervention would be needed.

The first proposition would be for the government to end ownership and operation of public service broadcasters. Although there is definitely reason to suggest that the government should support the production of news, there are no efficiency arguments to suggest that the government itself should be the one handling the production. The funding and provision of quality news should, in other words, be separate roles, with the government only stepping in with support on the funding side. There are several reasons for this, the most important being that a public broadcaster collecting huge amounts of revenue from licensing fees or lump sum taxes is not constrained to heed to the preferences of consumers and provide them with the material that maximises their utility. Furthermore, large portions of public service media funding goes to the production of education or entertainment, which are fields that face very different, if any, externality problems. If the government insists on maintaining a public service agenda in the media market, however it is defined, it should do as Luxembourg and outsource the services to commercial broadcasters, preferably auctioning off each separate service contract. By doing so the government could utilise competition and gain efficiency, even though a “public service“ role for the media might be inefficient in and of itself, since it would necessarily be defined by government goals, and not the preferences of consumers or their willingness to pay.

I have maintained throughout this thesis that resources are being underinvested in journalistic innovation, that is, journalists are underemployed and quality news underproduced compared with the optimal equilibrium. A simple and effective way to increase the quantity of news traded in the market is the one already implemented by most European countries: Reducing the VAT rate for media firms, or exempting them from it completely. A tax reduction or exemption is also the most conservative policy, and the one most likely to be politically feasible, since it is least imposing.

According to standard microeconomic theory, the equilibrium quantity consumed in the marketplace will increase as a consumption/sales tax is lowered providing that neither supply nor demand are perfectly inelastic, thereby countering the underproduction problem. There are some unresolved issues here though, the biggest one being the breadth of the exemption. It is easy to exempt single copy sales and subscriptions to both newspapers and television channels from the VAT, but that would be of no help to web media firms. A bias towards established conventional media is actually the biggest fault of the existing indirect support schemes because the web media has the greatest need for intervention since it has the most limited property rights (the news of web firms is most easily copyable), and depends almost solely on revenue from advertisements. To foster efficiency, the government should not discriminate against different forms of media by implementing platform specific policies. The government should not choose what medium prevails – making that choice is the role of the market. To avoid platform specificity, the breadth of the exemption would have to be greater. For example, advertisement sales of all news producers could be exempt from the VAT, since that would benefit broadcasters and web firms as well as newspapers.

It is not clear whether VAT exemption is enough to alleviate entirely the symptoms of limited property rights and externalities. Leroch and Wellbrock (2011) actually derive mathematically that a VAT reduction to a media market monopolist might be counterproductive, since it makes it more attractive to sell more copies, which might under certain circumstances lead to a reduction in quality as not all readers value journalistic quality (which, if true, leads one to wonder why authorities should not charge newspapers with higher VAT rates to ensure more quality?). They do admit that their model does not deal with efficiency concerns, only a normative need for quality media, and even a casual observation of their findings indicates that it is not of much use for the stated purposes of this thesis. Their model‘s biggest drawback for our analysis is how they define quality of news. It is not defined as a function of the time spent producing them, or the underlying investigation or analysis of the news‘ producer, but *only* as a function of the subject matter of the news. In their model, perfect quality news tackle politics, zero quality news tackle entertainment. This distinction would be more understandable if they did not make the assumption that news on politics is more costly to make than entertainment news (obviously, they have never camped outside celebrities‘ homes for hours armed with a camera). To contrast, the preceding analysis makes no quality distinction between the subject of news – I simply state that any investment of resources in the production of original content, or scoops, that fulfils the needs of consumers should be rewarded accordingly in the optimal equilibrium, no matter its subject or content. If consumers *actually* value news on entertainment more than news on politics, no economist can tell them it is wrong to do so, or that a media responding to their needs is providing suboptimal quality, at least when the price mechanism is functioning properly to signal preferences and externalities or other actual market failures are absent.

In any case, a direct subsidy might be necessary to push the market into an optimal equilibrium. We are now entering murky waters, though. Government subsidies to media firms pose the risk of making independent media dependent on state patronage, thus limiting their ability to serve as watchdogs. To prevent both the perception and reality of a media dependence on the government, the set of eligibility criteria faced by the media firms must be as general and objective as possible, and *every* media firm that meets the criteria must receive a subsidy with no questions asked. No firm should be put in a position of having to explain itself to the authorities. This is essentially what Denmark, Sweden and Luxembourg have done. The criteria used by these countries are the number of journalists employed at each media firm, the frequency of publication, the content and the firm's affiliations with political parties or other organisations. As far as eligibility goes, criteria involving these factors seem reasonable. The main task left is to adapt the criteria to fit all types of news producers in order to remove platform specificity. A direct subsidy mechanism should not discriminate between different types of media firms, for reasons mentioned in the last paragraph.

The question remaining is how to decide the amount of subsidies for each firm. Three main versions were presented above. In Luxembourg it is the production of editorial content that yields larger subsidies. In Denmark, selling copies is essentially subsidised via distribution grants, since firms get paid in proportion to the number of copies they distribute, and the cost they expend on distribution. In Sweden it is circulation that counts. The problem with each of these approaches is obviously platform specificity, but even if the schemes could be generalised to cover all platforms, are these the right parameters to use?

Remember that the efficiency problem is not exactly underproduction of content, but underproduction of *quality* content. By subsidising all editorial content indiscriminately, the subsidies run the risk of creating incentives for publishing *any* content with no regard for quality. A content subsidy is an untargeted strategy unlikely to yield the intended effects of the subsidies.

Distribution happens after news has been produced and so does not enter into the production decision of a report on any given subject. The problem is not that there is a suboptimal number of *copies* of quality news, but a suboptimal number of *quality news* itself – there is a difference. Subsidising distribution will not have a targeted effect on what news is produced or the resources employed in doing so. Distribution grants might for instance cause firms to shift the focus of their news to reach a larger audience at a lower price, or to worry less about costs in general. There is no reason to believe that distribution subsidies will provide greater efficiency by providing an unambiguous incentive to innovate, unless the decrease in cost is used to fund hiring more journalists

– which is far from given. It therefore should not come as a surprise that Denmark is revising its distribution grant scheme.

Circulation is another suboptimal determinant of subsidies. Subsidies dependent on circulation resemble distributional subsidies since they are proportional to the number of copies published by a firm. However, in Sweden they are called operational subsidies. There, the subsidy cap is set as a percentage of each firm's operating costs instead of its distribution costs as in Denmark. Section 5 demonstrated what happens when firms try to maximise their circulation without concern for the actual benefit they are procuring by doing so. In the case of internet firms, this problem would only get worse by introducing circulation subsidies, but if Logan and Sutter (2005) are right (see section 2.2. on asymmetric information) and quality induces greater circulation of newspapers, then subsidising based on it might induce greater quality. Even if this were true, it would seem a bit roundabout and untargeted to subsidise circulation, which is a dependant variable of quality, rather than simply subsidising quality itself. On top of that, remember that even the model of Logan and Sutter included other variables than quality. There are several other variables influencing circulation as well, such as demographics, market segmentation, differentiation of coverage etc, which probably should not influence the amount of subsidies. The biggest concern, however, is that firms can gain wide circulation by publishing material copied from others. Such copying is exactly the type of behaviour the optimal subsidy scheme would not reward, so circulation is probably a sub-optimal parameter to govern subsidies.

What we need is what Tim Harford (2007) calls "keyhole economics" with reference to keyhole operations; surgery requiring only a small incision, targeting the problem at hand without interfering more than is absolutely necessary. In this case, we should start by defining the problem. According to the preceding analysis, the problem of the media market is that quality news is being underproduced due to a market failure that leads to resources being underemployed to journalistic innovation. Data from Iceland seems to suggest that failure manifests itself in a journalist workforce that sees itself as too pressed for time to actually be able to deliver quality news. This is essentially what our (admittedly very simple) model of news provision concludes – a lack of property rights leads to too few journalists being employed. By now, the keyhole incision we need to make is looking us straight in the face. We should simply subsidise journalists.

Paying firms a fixed sum for each journalist they employ, or a sum proportional to the journalist payroll, has several advantages. For one, it is perfectly platform neutral. It is very simple and requires a minimum amount of overhead to implement. It would require monitoring of media firms to ensure they do not disguise receptionists or salesmen as journalists to collect undeserved subsidies. However, being in the public eye makes the monitoring of media firms‘ operations less difficult. If monitored and enforced sufficiently, subsidising journalists ensures that the subsidy actually goes toward production of news, and that the firm does not use it to cross-subsidise other operations, or other aspects of production. Like I argued in section 4.2.2. on the by-line, there is no reason not to assume that journalists will pursue independent analysis and investigation as long as they are given sufficient room to do so, which is what hiring more journalists might do. A journalist subsidy is no panacea, however. It will do nothing to alleviate the overproduction of common pool news, or the biased incentives faced by web firms maximising hits, instead of utility. In addition, the subsidies must be financed by taxation, which can distort outcomes in other markets.

I will leave the topic of the appropriate amount of such subsidies, and the details of its administration (for example, should a subsidy be regressive, progressive or linear to the number of journalists employed?) open to further research. I nevertheless conclude that journalist subsidies are undoubtedly the most targeted and focused way available to mitigate the central problem of scoops in absence of secure property rights.

# 10 Conclusions

Exciting times lie ahead of the modern media. Never in the history of mankind has the gathering and dissemination of information been easier thanks to great strides in information technologies. But as we have seen, these strides pose some threats, as well as opportunities. The literature on media studies and media economics need to adapt to these changing circumstances; models of the representative media firm as a giant monopolist newspaper or broadcaster that were appropriate two decades ago are now completely obsolete. This thesis has the goal of applying the new institutional economics paradigm to create an original and flexible analytic framework for understanding recent media market developments and offering policy guidance, without too many restrictive assumptions on how the media market is structured or how different firms operate.

By now, it should be clear that it is prohibitively hard to define legal property rights over news, and harder still to secure economic property rights by enforcing the legal rights. This difficulty arises because of the nature of news; they are reports of facts, and no one can own facts – a trait that has always plagued the production of news, for instance by inducing an overproduction of common pool news. The economic property rights secured by technological constraints on copying in the past have been disappearing along with the associated (temporary) control of the news stories. The loss of control is causing an underemployment of resources in the production of scoops, which has resulted in lower quality. Although conclusive empirical evidence is not presented, the limited data available clearly supports this hypothesis.

Most countries in Europe provide some sort of government support to the media, but I argued that these schemes are usually suboptimal. The policy response suggested by my analysis is a simple system of subsidies aimed at the production level, i.e. to grant an amount to each firm based on the number of journalists it employs. This would push the media market towards the optimal equilibrium point, although the exact amount and implementation of the optimal scheme is left open to further research.

# References

Akerlof, G. A. (1970). The Market for “Lemons“: Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488-500.

Alchian, A. and Demsetz, H. (1973). The property rights paradigm. *Journal of Economic History* 33(1)*:* 16-27.

Anderson N. (2010). Who owns the facts? The AP and the "hot news" controversy. *Ars Technica.* Retrieved March 16 from http://arstechnica.com/tech-policy/news/2009/05/who-owns-the-facts-the-ap-and-the-hot-news-controversy.ars.

Applegate, D. L. and Schermerhorn, R. (2011). Hot News: The "Hot-News" Doctrine Is Hot Again! Or Is It? *Engage Volume 12, Issue 3, November 2011*.

Briggs, A. and Burke, P. (2005). A Social History of the Media: From Gutenberg to the Internet. Cambridge, Bretlandi og Malden, Bandaríkjunum: Polity Press.

CNN changed news – for better and worse. (2005, May 31). *Taipei Times,* pp. 9.

Croteau, D. and Hoynes, W. (2001). The Business of Media: Corporate Media and the Public Interest. Kaliforníu, Bandaríkjunum: Pine Forge Press.

Downs, A. (1957). An Economic Theory of Political Action in a Democracy. *The Journal of Political Economy*, 65(2), 135-150.

Frankel, A. (2011, June 21). Fly Ruling is not a free pass for aggregators. *Reuters*. Retrieved March 13, 2012, from http://www.reuters.com/article/2011/06/21/us-frankel-fly-idUSTRE75K6OR20110621.

Frijters, P. and Velamuri, M. (2009). *MPRA Paper No. 15723*. Retrieved March 14, 2012, from http://mpra.ub.uni-muenchen.de/15723/.

Friðrik Þór Guðmundsson. (2006). *Vinnubrögð, siðareglur og vandamál blaða- og fréttamanna á Íslandi.* Thesis (MA) in Media Studies from the University of Iceland.

Gentzkow, M., and J. Shapiro (2006): Media Bias and Reputation. *Journal of Political Economy,* 114(2), 280-316.

Gordon, H. S. (1954). *Journal of Political Economy,* 62(2), 124-142.

Government Offices of Sweden. (n.d.) *Public service radio and television.* Retrieved March 27, 2012, from http://www.sweden.gov.se/sb/d/14475/a/161859.

Hall, B. H. and Rosenberg, N. (2010) *Economics of Innovation*. Oxford: North Holland.

Harford, T. (2007). *The Undercover Economist.* New York: Random House.

Hindriks, J. And Myles, G. D. (2006). *Intermediate Public Economics.* Massachusetts: MIT.

INTERNATIONAL NEWS SERVICE v. ASSOCIATED PRESS, 248 U.S. 215 (1918)

Katrín Pálsdóttir. (2006). Fjórða valdið. Thesis (MA) for a business diploma from the University of Iceland.

Kind, H. J., Nilssen, T. and Sörgard, L. (2009). Business models for media firms: Does competition matter for how they raise revenue? *Marketing Science, INFORMS*, 28(6), 1112-1128.

Kremhelmer,S. and Zenger, H. (2008). Advertising and the Screening role of mass media. *Information Economics and Policy,* 20(2), 107-119.

Kristín Ástgeirsdóttir, Salvör Nordal and Vilhjálmur Árnason. (2010). Siðferði og starfshættir í tengslum við fall íslensku bankanna 2008. Páll Hreinsson, Sigríður Benediktsdóttir og Tryggvi Gunnarsson (ritstjórar), Aðdragandi og orsakir falls íslensku bankanna 2008 og tengdir atburðir, 8. bindi. Reykjavík: Rannsóknarnefnd Alþingis samkvæmt lögum nr. 142/2008 um rannsókn á aðdraganda og orsökum falls íslensku bankanna og tengdra atburða.

Leroch, M. A. & Wellbrock, C. M. (2011). Saving newspapers with public grants – The effects of press subsidies on the provision of journalistic quality. *Information Economics and Policy*; 23(3-4), 281-286.

Lévêque F. & Ménièry Y. (2004) The economics of patents and copyright . A primer. Berkeley Electronic Press.

Linnebank, G. og Nielsen, K. N. (2011). *Public Support for the Media: A Six-Country Overview of Direct and Indirect Subsidies*. Oxford: Reuters Institute for the Study of Journalism, University of Oxford.

Logan, B. og Sutter, D. (2004). Newspaper Quality, Pulitzer Prizes, and Newspaper Circulation. *Atlantic Economic Journal; 32(2).*

Markaðs- og miðlarannsóknir ehf. (2011, 13. apríl). *Könnun MMR á trausti almennings til helstu sjónvarps-, prent- og netfréttamiðla.* Retrieved March 11, 2012 from http://www.mmr.is/images/stories/PDF/1104_tilkynning_traustfjmidlar.pdf.

MAVISE. (2011). *TV Market in Luxembourg.* Retrieved March 11, 2012 from http://mavise.obs.coe.int/country?id=20#section-2.

McQuail, D. (1992) *Media Performance*: *Mass Communication and the Public Interest.*London: SAGE Publications.

Morton, J. (1991). 40 years Of Death In The Afternoon. *American Journalism Review, November Issue.*

Mullainathan, S., and Shleifer, A. (2005). The Market for News. American Economic Review, 95(4), 1031-1053.

Natascha Kampusch: 400 interview requests – that was just the start. (2006, September 11). *The Independent.* Retrieved March 11, 2012 from http://www.independent.co.uk/news/media/natascha-kampusch-400-interview-requests--that-was-just-the-start-415464.html.

News Pirating Case in Supreme Court. (1918, May 3.) *The New York Times.* Retrieved March 16 from http://query.nytimes.com/mem/archive-free/pdf?res=F50D1FF6345B11738DDDAA0894DD405B888DF1D3

Elinor Ostrom (2008). Institutions and the environment. *IEA Economic Affairs* (September): 24-31.

Sérfræðihópur skipaður af sjávarútvegs- og landbúnaðaráðherra. (2011). Greinargerð um hagræn áhrif af frumvarpi til nýrra laga um stjórn fiskveiða samkvæmt þingskjali 1475. Reykjavík.

Tierry Rayna (2008). Understanding the challenges of the digital economy: The nature of digital goods. *Communications & Strategies* 71(3): 13-36.

The Post Investigates. (n.d.) The Washington Post. Retrieved March 13, 2012, from http://www.washingtonpost.com/wp-srv/politics/special/watergate/part1.html.

Udvalget om den fremtidige offentlige mediestøtte. (2011). *Summary of the Media support project.* Retrieved March 28 from http://www.bibliotekogmedier.dk/fileadmin/user_upload/dokumenter/medier/Mediestoetteudvalget/Summery_of_the_media_support_project_17.10.2011.pdf.

# Appendix 1 – The questionnare sent to media authorities regarding public support

The following information was requested from each country:

1. **The reason or rationale for providing government support to media in the first place.**

2. **Information regarding the financial and operational extent of public service media (such as a national broadcast service) as well as how it is funded (licensing fees, general taxes, etc.).**

3. **Information regarding any and all indirect media subsidies, and who it is available to (such as a lowered VAT or a sales tax exemption on subscription/ single copy sales/advertisments, or reduced phone/postal/distributional rates etc.) as well as an estimate of it's financial extent if available.**

4. **Information regarding any and all direct media subsidies (such as a press support scheme, direct phone/postal/distributional subsidies etc.) as well as information on the criteria for direct media subsidies and it's financial extent if available.**

5. **Information regarding any other sort of relevant support for media.**