THE ECONOMICS OF ONLINE NEWS AGGREGATION

AND NEIGHBOURING RIGHTS FOR NEWS PUBLISHERS

[redacted]

DRAFT, OCTOBER 2016

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Abstract

This paper takes an economic perspective on the copyright debate in online news. The creation of a neighbouring right for news publishers follows the logic of the civil law approach to copyright that emphasizes the right to remuneration for all forms of digital reproduction and communication. Empirical evidence shows that news aggregators already have a positive impact on publishers' advertising revenue. It is difficult to see how publishers could gain more revenue from a neighbouring right, as the Spanish and German cases show. The economics of multi-sided platforms may provide a better explanation for this situation than the alleged abuse of a dominant market position by news aggregators. The common law view on copyright emphasizes the purpose of copyright as a financial incentive to ensure production of news. While several factors have driven the decline in newspaper revenues and in the number of legacy newspapers, news aggregation has an opposite effect. There is no evidence that declining revenues reduced the production of news articles as many new sources of digital news production have emerged. However, news aggregation platforms may create risks for media plurality in news consumption, more so than in the supply of news. Article rankings in platforms are driven by ad revenues. This weakens the editorial choices and branding of newspaper publishers. Rankings might trigger superstar effects that reduce the variety of news consumption. These risks cannot be addressed through copyright.

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[1] The author is [redacted] at the Joint Research Centre of the European Commission [redacted] Parts of this paper were presented [redacted] The views and opinions expressed in this paper are the author's and do not necessarily reflect those of the JRC or the European Commission. [redacted]

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1. Introduction

The shift from offline printed newspapers to online digital media has led to a decline in revenues for legacy newspapers. Several factors have contributed to that decline (Cornia et al, 2016). Readers moved their news consumption online and, in recent years, to mobile screens. This led to a steep decline in print edition revenues. Newspapers are struggling to compensate this through online subscriptions, trying to find a "freemium" balance between freely accessible and paywall protected content. Advertising spending also moved online and is more dispersed since advertisers have a wider choice of media channels to promote their products. Online ad revenue for newspapers only partly compensates the loss in offline ad revenue. Up to 90% of revenues in most newspapers still come from print, even after years of decline in print advertising and circulation and almost 20 years of investment in digital media (Cornia et al, 2016, p 7-8). Newspapers experiment with paywalls, native advertising and product branding, diversification into merchandising and e-commerce activities, video advertising, etc. Others are experimenting with distribution through social media and mobile platforms though some are reluctant and fear becoming too dependent. More sources of news have moved online, including TV and radio broadcasters, new ad-driven online newspapers, social media websites and blogs. They all compete for the attention of news consumers and drive down the market price of news. Unbundling adds to that competitive pressure. While offline readers bought a bundle of articles in a print edition, online readers can chose freely between articles from a variety of online news sources.

In this thriving online news market, news aggregation platforms have emerged that combine short snippets of news articles from many publishers, with links to the original full article. Readers are attracted to these because they reduce search costs for a wider variety of sources of news. Some are ad driven but Google News, the main operator, is ad-free. Recently, full text articles, combined with ads, have emerged on the Facebook social media platform. The shift to mobile news reading adds further complications for publishers. Small mobile screens, slow loading articles and the very short attention spans of mobile users are a challenge. The Google News and Facebook platforms have become major gateways to a wider online audience. Publishers feel uncomfortable with that situation.

The contrast between thriving platforms and struggling news content publishers has led some publishers to claim a larger share of the platform revenue cake, on top of the benefits from the additional reach and ad traffic that news aggregators provide. Publishers want remuneration for the copyrighted content that they provide to news aggregation platforms. That explains the origins of the debate on ancillary or neighbouring rights for newspaper publishers.

Some EU MS have taken action. Germany introduced a neighbouring right in law in 2013 that allowed publisher to charge websites for using their text, unless that text is reduced to very small snippets. The law creates a situation where original news content publishers need to explicitly agree that an aggregator or search engine can put snippets of news items on a website. Despite expressing concern about Google sites and lobbying for the law, German news publishers eventually opted in and the market situation did not change. In Spain, the government introduced legislation in 2014 that goes a step further and provides for mandatory payment of license fees by online news aggregators through a collection society. Publishers are not free to opt-in to aggregation of their content. As a result, Google withdrew its News service from Spain, though it keeps displaying news article snippets in its search pages. In other countries courts intervened. After a court decision in a dispute between Google Search and the Francophone Belgian newspapers, the case was settled in 2012 with an agreement for enhanced collaboration between Google and the newspapers to attract more traffic to newspaper sites and to increase advertising revenue. A similar settlement was reached in France between Google and newspaper publishers.

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This paper aims to complement the legal approach taken in the copyright debate with an economic perspective. It starts from the civil law perspective of copyright as an authors' right to remuneration and examines the empirical evidence on the impact of online news aggregators on the revenue of news publishers. It finds an overall positive impact on audience reach and ad revenue for newspaper publishers. Moving to a common law or economic perspective on copyright as an instrument to promote innovation in society, it finds no conclusive evidence that weak copyright has contributed to a lack of incentives for new production. [redacted] A better explanation for the fact that news publishers were unable to monetize their legal rights in Spain and Germany may be found in the economics of multi-sided markets and the weak market position that publishers have in online platforms. Last but not least the paper examines the impact of news aggregators on media plurality. Aggregators may promote plurality because they reduce transactions costs for consumers to access a wider variety of press sources and articles. On the other hand, search rankings in aggregation platforms may trigger superstar effects and other distortions that affect the consumption of a variety of news sources. Again, there is insufficient evidence on this. This is not an issue that can be addressed through copyright reforms.

This paper is structured as follows. Section 2 provides a brief introduction to the rapidly evolving online news markets and technologies. Section 3 addresses the question whether online news aggregators add or divert revenue from newspapers' own online outlets. Section 4 goes beyond the remuneration debate and takes a wider economic look at copyright protection and the impact on innovation and social welfare. Section 5 explores potential market failures in online news aggregation markets that may justify the intervention of competition authorities and regulators. Section 6 investigates the impact of aggregators on media plurality in news production and consumption. Section 7 concludes.

2. The evolution of online news distribution models

Nearly all newspapers now have an online presence, either jointly with a print edition or online only. Not all readers come directly to the website of a newspaper. Some get there by clicking on the search results of a general search engine, others come via news aggregators or via links embedded in social media or other webpages. There are different types of new aggregation business models. They show only short snippets of news articles. Some display ads next to the articles or snippets and share the revenue (Facebook, Yahoo, MSN); others do not display ads (Google News) and have no direct revenue to share. Google News is a stripped-down search engine that displays only newspaper article links for a particular country, without ads. Even with ad revenue sharing commercial agreements fall short of a full copyright license.

Publishers pay attention to sources that direct traffic to their news sites and claim a share of the revenue of these referral sites. For example news publishers argue that although Google puts no ads on the News aggregator pages, it draws indirect traffic and revenue to the Google Search pages by displaying links and snippets of news article text in the search ranking. That generates ad revenue for Google through ads placed on the Search page. It is hard though to trace a direct link between

Google Search ads and clicking on search results for news articles. Users either click on the ad or on the search result; they cannot do both.

Referral traffic led to a first court case in Belgium[2] (2006), and later in France, where publishers claimed remuneration for the use of their content in Google News, despite the fact that Google News carries no ads. Google refused to pay and de-listed the newspapers from it Search and Google News results. That caused a drop in traffic to newspaper websites and in ad revenue. Some of these ads where placed through Google AdWords; Google also lost revenue as a consequence. Google and the newspapers in Belgium and France finally came to an agreement whereby Google provided some financial means, short of a license agreement, and helped newspapers to get more traffic to their websites. Similar cases emerged in Spain and Germany. In these countries, law makers decided to intervene and create an explicit neighbouring right for news publishers that enables them to claim remuneration for the (partial) reproduction of their content in news aggregation sites. In Spain, the law made remuneration mandatory; in German, publishers were left a choice to accept or reject reproduction without remuneration. To date German and Spanish news publishers have been unable to monetize these rights. After an initial rejection and chilling effect on traffic to their websites, German publishers finally agreed. Spanish publisher did not have that option and suffered a decline in traffic.

Recently, the shift in download speed in mobile phones has enabled consumers to shift news reading from fixed computers to mobile, especially mobile users who are active in social media. About 40-50% of users consume news through their mobile phone (Reuters, 2016). In some countries, social media account for 75% of all news distribution activities, especially among the younger generations (Reuters, 2016). Facebook is the clear market leader for social media news consumption. Its newsfeed attracts a substantial volume of traffic. End-2015, Facebook introduced a new service: Facebook Instant Articles (FBIA). It displays the full text of a news article, with ads in the article. The articles are loaded onto Facebook servers and into the Facebook app environment. That puts Facebook in a position to observe user behaviour and control ad revenue. Facebook claims that users read more Instant Articles than ordinary articles and are less likely to abandon the article. Instant Articles allows news publishers to retain 100% of the ad revenue on their own ads and 70% of the revenue on Facebook-produced ads. In this way, newspaper publishers passing through Facebook receive the same ad revenue as they get on their own websites, with the added advantage of reaching a wider audience. That explains why hundreds of newspapers have already signed up for this distribution channel since Facebook opened it up to all newspapers in May 2016. Ad revenue from newsfeed now represents a large share of Facebook revenue growth (Nieborg, 2016). However, there is no guarantee that Facebook will continue to offer such generous financial terms to news publishers in the future.

Google responded to the challenge of FBIA by introducing Accelerated Mobile Pages (AMP). This is a technology that improves the mobile user experience with faster loading pages in their mobile browsers. That facilitates not only newspaper reading but also many other types of content. Today there are over 650k mobile pages that use AMP in all sectors. Slow loading mobile pages were diverting mobile traffic from browsers to apps, including search-directed traffic in browsers, and the ad revenue that comes along with this traffic. Google has a strong position in advertising in

[2] See https://en.wikinews.org/wiki/Google_convicted_in_case_brought_by_Belgian_press

browsers; Facebook has a strong position in mobile advertising. News pages loaded through FBIA don't allow Google ads to be displayed; they display Facebook ads – or ads produced by the news publisher. By improving mobile page load speed, consumers will be more inclined to search and load more pages in mobile browsers – and that brings more traffic and ad revenue back to Google. Consumers will click more on ads if they are confident that they will be loaded fast; that improves ad click-through rates. It boosts revenue for news publishers and many other content publishers on mobile pages. Google AMP caches the news articles on a Google server but does not control audiences and revenue. Ad revenue accrues to the ad publisher – where Google may also have a stake through AdWords. Last but not least, AMP pages get a rank boost in mobile search (read: Google Search), bringing mobile searchers quicker to faster pages.

The ad revenue battle continues on other fronts too. Ad blockers become a major risk for many ad-driven online business models, including news publishers. Some news publishers have already introduced a "no ads, no views" policy: they block access to free online news for users who have installed ad blockers (Cornia et al, 2016).

3. Newspaper revenue and the substitution debate

Legacy newspaper publishers have suffered a steep fall in revenue in the transition for print editions to online news consumption. Online ad revenue has somewhat softened the fall but has not been able to stop it and turn it around. Newspapers observe the thriving online social media business, powered by ad revenue and partly driven by newsfeed produced by the publishers – and they want a (larger) share of that revenue.

Whether online news aggregators have contributed to a decline – or an increase - in revenue for news publishers is an empirical question. In this section we review the existing empirical evidence and conclude that it has a positive effect.

The impact of online news aggregators on the revenue of original news publishers is the result of the net effect of two opposing forces: a quantity and a substitution effect. The substitution effect measures to what extent aggregators displace online traffic and reduce the revenue generated by the publishers' own website. The quantity effect measures to what extent aggregators increase revenue by re-directing traffic towards the publisher's own website. If the substitution effect dominates, the original news publishers lose revenue; if the quantity effect dominates they gain revenue. The net effect is an empirical question that cannot be settled by economic theory or legal reasoning; only data can answer that question. In the remainder of this section we summarize the available empirical evidence to date. The main finding is that the quantity effect dominates the substitution effect. Aggregators are complementary rather than competing services to newspapers' original websites. On balance, they direct additional traffic to news publishers' websites and thereby increase rather than reduce their online revenue.

News aggregators offer snippets or small extracts of the original news article only. This may stimulate the interest of readers to click through to the full article on the original publisher's website. That increases traffic and ad revenue on the original newspaper site (the quantity effect).

Aggregators may also provide a re-worked and edited version of one or several original articles, for instance in user-aggregated and blog aggregator sites (Isbell, 2010). That shifts more consumer value to the aggregator site and may reduce users' interest to look for the original article (Delarocas et al, 2015). The substitution effect depends on the difference in quality between the aggregator service and the original service offered by the publisher. The wider the quality gap between the two services the more likely that the quantity effect prevails. Aggregators often deliberately provide incomplete services because they cater to the long tail of news readers with less interest in full articles and a low willingness to pay for the full content. Tapping into that long tail may give original news publishers new audiences that they would otherwise not reach. Stopping that unlicensed distribution channel will not bring these customers back to fully licensed distribution websites. Aggregators and original content producers play in slightly different markets characterised by quantity and quality discrimination between different types of news readers. A more recent generation of mobile service news aggregators, such as Facebook's Instant Articles and Google's Accelerated Mobile Pages, offer the full news article for reading. In return, they offer the original newspaper publisher between 70 and 100 per cent of the ad revenue generated by the article so that there is no revenue substitution effect at all: the publisher receives the same ad revenue as on his own website.

Chiou & Tucker (2011/2015) explore whether aggregation of content by a single platform encourages users to "skim" content or to investigate in depth. The study uses data related to a contract dispute in 2010 that led a major aggregator (Google News) to remove news articles from a major content provider (Associated Press). These articles were typically shortened versions of stories that appeared in a select number of AP-associated newspapers. They compare users' website visits before and after this contract dispute relative to traffic on Yahoo! News, which continued to provide Associated Press content during this period. In theory consumers may use platforms to scan the extracts of content without clicking through to pursue more in-depth material ("scanning" or substitution effect). On the other hand, consumers may use platforms to explore new material more deeply ("traffic" or quantity effect). The authors find that after Associated Press content was removed from Google News, fewer users subsequently visited news sites after navigating to Google News relative to users who had used Yahoo! News. Over a seven-week period 80 million monthly visits were lost to newspaper websites that carried AP content. They find evidence that the traffic or quantity effect is large, as aggregators may guide users to new content. There is no evidence of a scanning or substitution effect, as overall traffic to Google News and Yahoo! News remained relatively comparable during that time period. Websites with stronger ties to AP suffered a drop in traffic after the dispute.

Chiou & Tucker (2015) conclude that the "fair use" exemption relied on by aggregator sites in the US is potentially less damaging to the original copyright holder than often thought. The decision to opt-into (or out of) an aggregation platform should depend on whether the content provider is considered high-quality or highly unusual. Both these characteristics appear to encourage users to use the aggregator to explore content more deeply instead of scanning content. Horizontally or vertically differentiated content from high-quality newspapers or from very local or specialized themes newspapers are likely to benefit from news aggregator sites while more bland middle-ground news producers may stand to lose. These findings are in line with earlier research by Bar-Isac et al (2012) on the impact of search cost reductions on the distribution of online consumption. Top performing products as well as long-tail rare products are likely to gain when search costs diminish while the middle ground may lose out. New aggregators reduce search costs for consumers and seem to have a similar impact of the distribution of news consumption.

Athey & Mobius (2012) study the introduction of a “local news” feature in Google News France in late 2009. Users could enter their zip code and on all subsequent visits they see news from local outlets prominently featured. The authors compare the news consumption of users who enable this feature to the usage of a set of “control” users, over a 2-week and an 8-week period. Adoption of this Google news feature leads to 26% increase in consumption of local news sites over a 2-week period and Google News explains a substantial portion of that increase. There is a 5% increase in direct navigation to local outlets (bypassing Google News altogether) and a 13% increase in clicks on local outlets from the Google news home page. Over an 8 week period the local news treatment effect is attenuated somewhat but remains high (over 14%). Over time the incremental local news consumption derives primarily from increased utilization of Google News. There is a 12% increase in the number of local outlets used. However, the Google local news feature cuts into the curation role of newspapers. Users are sent directly to the article, bypassing the profitable home page of the news outlet. They may subsequently read other articles in the outlet through following links they see on the same page as the original article, and thus their browsing may never take them to the outlet’s home page. Even though these results broadly support the hypothesis that news aggregators are complements for local news outlets, it is important to emphasize that the impact on local news outlets is mixed overall. Some outlets gain more than others and users spread their consumption over a larger number of outlets. George & Hogendorn (2013) come to similar conclusions for the re-design of Google local News in the US.

Delarocas et al (2015) conduct a series of field experiments about readers' allocation of attention between news aggregator and the original articles they links to. They examine how the length of the text snippet, the presence of images and the number of related articles on the same story, affect a reader’s propensity to visit the content producer’s site and read the full article. Their findings suggest that longer aggregator snippets reduce the probability that readers will read the full articles. However when several related snippets compete for user attention, a longer snippet and the inclusion of an image increase the probability that an article will be chosen over its competitors.

Huanga et al. (2013) assess the relationship between aggregators and news websites in Taiwan. Newspapers worldwide often serve as content providers for news portals, but portals outperform most newspaper sites in audience share. Based on empirical data collected through a large-scale survey they find that aggregators do not compete with news websites, with the exception of Yahoo! News. Lee & Chyi (2015) use a national survey of 1,143 U.S. Internet users to study the demand for aggregators and other media outlets in the USA. They find a non-competitive complementary relationship between three major news aggregators and 13 major TV, print and social media news outlets. Google News, Yahoo! News, and Huffington Post do not compete with other media outlets.

At the request of the Spanish Association of Publishers of Periodical Publications NERA Consultants (2015) assessed the impact of the introduction of a newspapers publishers' right in the Spanish Copyright Act that became effective on 15 December 2014. It was promoted by a small group of publishers despite opposition from many industry players. The revision of the Spanish law was motivated both by the observation that aggregators benefit from the publishers’ efforts without remunerating them, and the assumption that the substitution effect dominates the quantity effect.

The revised Article 32.2 of the Act established a compulsory fee to be paid by online news aggregators to publishers for linking their content within their aggregation services. Unlike the German case, Spanish publishers cannot opt out of receiving this fee and payments are to be made through a copyright collecting society. This was justified to prevent a repetition of the German case where the opt-in option led to a status quo. Using ComScore web traffic data, the NERA study found a decrease in traffic to Spanish newspapers' websites by 6% on average during the first few months of 2015, going up to 14% for small newspaper publications. Independently, Chartbeat, that tracks 50 Spanish newspaper sites ranging from small media outlets to the largest newspaper publishers, confirmed that these sites saw their external traffic fall by 10-15 percent. Overall traffic did not fall immediately as the amount of internal traffic coming from other Spanish newspapers rose. This suggests that readers are moving more between Spanish news sites than previously, rather than coming directly from links at Google News. This could be interpreted as an indication that user search costs increased as the Google aggregator site stopped providing links. Users had to generate their own news aggregation instead of Google News doing it for them.

Calzada & Gil (2016) use a more sophisticated dataset from SimilarWeb to study both the Spanish and German cases. The data do not only track the volume of web traffic but also the sources that generate the traffic (direct access to the news pages, aggregators, search engines, social media sites, links from other web pages, etc.). They find an 11% drop in Spanish newspaper traffic (quantity effect) and an 8% drop in the number of newspaper pages visited (a reduction in the variety of news) following the change in the copyright law. The latter could be interpreted as evidence that news aggregators increase access to a plurality of media resources rather than reduce it. More surprisingly, the authors find a drop in search and direct traffic to newspaper sites by 12% and 14% respectively. This is inconsistent with a substitution effect. It may show that users quickly grew tired of the additional transaction costs to do their own news aggregation via search and direct access to newspaper sites and simply reduced the number of news sources that they consulted. That would once more confirm the variety or media plurality effect of news aggregators. Aggregators may actually increase the number of direct visits to news outlets by allowing consumers to rediscover new sources of information. For the German case they find a 7% reduction in daily visits to news outlets controlled by the Axel Springer group that initially opted out of Google News during a 2-week period. There was also a 10% reduction in visits via search engines and 7% direct visits.

These empirical studies cover only the impact of news aggregators on traffic and revenue for the original content publishers – the producer surplus. They do not examine the impact on the production of original news content – the long-term dynamic effect of (weakened) copyright protection on the supply of innovative products - or the impact on consumer welfare through reduced search costs, availability of a wider variety of news sources and lower prices. Jeon & Nasr (2015) are the first to explore these wider welfare implications in a theoretical model. They examine how the presence of news aggregators affects the quality choices of newspapers, using an economic model to capture the "business-stealing effect" and the "readership expansion effect" of the aggregator. They find that the presence of the aggregator leads newspapers to specialize in news coverage and changes quality choices from strategic substitutes to complements. This shift is likely to increase the quality of newspapers and overall social welfare, though the effect on newspapers' profits is ambiguous. Unfortunately there is no empirical evidence yet in support of this model.

We can conclude from this overview that there is no empirical evidence in support of the substitution hypothesis and thus no evidence that online aggregators have a negative impact on original newspaper publishers' revenue. On the contrary, aggregators may actually be complements to newspaper websites and may help consumer discover more news and boost the number of visits. This structured empirical evidence is corroborated by more qualitative and anecdotal evidence collected through interviews with newspaper managers (Cornia et al, 2016). They confirm that newspapers collaborate with large social media platforms like Facebook, Snapchat, Google, Yahoo and Apple because they bring them in touch with large online audiences that channel a substantial volume of traffic and ad revenue to their articles. News publishers may of course want to reach further and claim a share of indirect ad revenue related to snippets of news text that appear in general search engines – as Belgian and French newspaper publishers tried to do. The German competition authority (BKarA, 2015) pointed out that indirect ad revenue via search is hard to verify (see below). Rather than claiming copyright and a share in ad remuneration, the evidence (Delarocas et al, 2015) suggests that reducing the length of snippets – with the help of courts - may be an easier way to get there. It will not diminish the audience reach that search engines bring to newspapers and it will boost the expansion effect by directing more search traffic to newspapers' own websites and ads.

The decline in revenue in legacy news publishing started long before online news aggregation. It was caused by a shift in readership and advertising from offline print editions to online news sites. It is difficult for news publishers to find a good balance between free and paid online content. Many are experimenting with the positioning of paywalls on their online news sites. Chiou and Tucker (2013) find that the introduction of a pay wall leads to a 51% decrease in online visits and thus advertising revenue. It is not clear how much of that loss would be compensated by an increase in subscription revenue. Only news producers with a strong reputation and/or specialisation and a high price elasticity of demand for their news items are in a position to put up a pay wall to increase revenue. Moreover, moving online has resulted in unbundling of newspapers: while articles were sold as a package in print editions, consumers have more choice in making their own selection of articles online as they can freely move between different newspapers. Subscription fees limit that unbundling and reduce competition between newspaper sites. Still, the volume of freely available content is huge. Inevitably, the price of online content goes down as the volume of free supply increases.

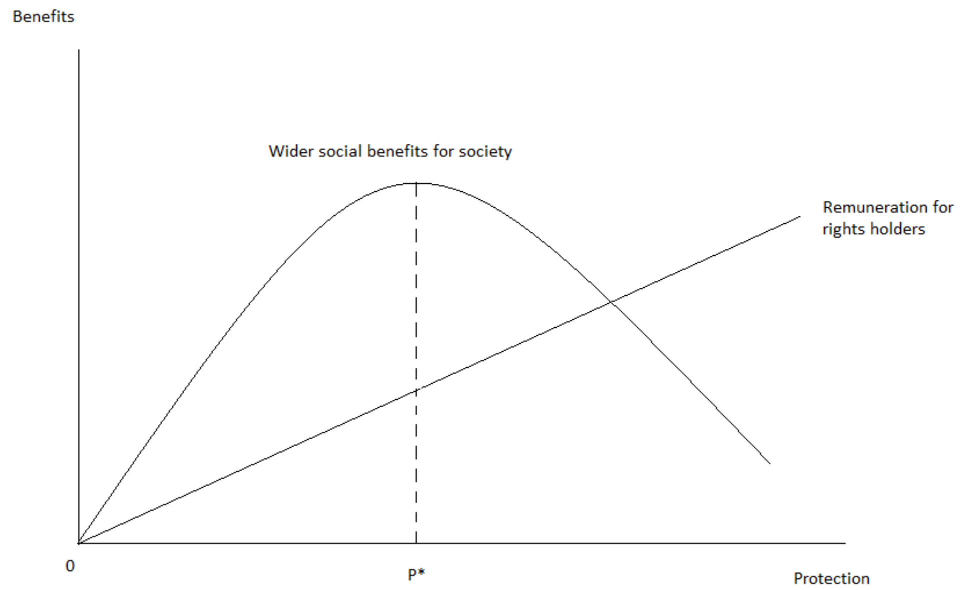
4. The economic view on copyright

The strong focus on the revenue or substitution effect is a result of the Continental European civil law approach to copyright that emphasizes the rights of authors and publishers ("*droit d'auteur*") to decide on reproduction of their works and communication to the public, as well as the remuneration they want to receive for that use (Hugenholtz & Quintais, 2016). These rights have been put under stress in the digital age with the invention of many new forms of reproduction and communication to the public, including through hyperlinking and other forms of re-transmission and re-mixing, accidental and transient copying, text and data mining (Poort, 2016) and the same is happening with online news aggregation. The civil law tradition seeks to obtain remuneration for all digital reproductions that are publicly available, subject to some exceptions that are justified by transaction costs. Lawyers and courts are struggling to bring these new technologies in line with that right or design extensions and modifications of copyright law to bring them into the fold of that remuneration right paradigm.

The civil law approach can be contrasted with the common law view on copyright that is more aligned with the economic view (for instance in Landes & Posner, 1989). The economic view sees copyright as an economic policy instrument to stimulate innovation for the benefit of society as a whole, not only for authors or private rights holders. The civil law and common law view coincide in the argument that, without copyright protection, authors would have no incentive to invest in the production of artwork because everybody else could benefit from that investment by paying only the cost of a copy. That externality creates a market failure because it would stop production. The common and civil law views start to split ways when it comes to the economic interpretation of copyright as an exclusive monopoly right granted to the authors to decide who can use a copyright protected work, under which conditions and at what price. For economists, monopoly rights are by definition inefficient because they cause deadweight losses: potential benefits that cannot be realized in society. However, these short-term or static losses in copyright protection are compensated by longer-term dynamic gains because it produces a steady stream of innovative artwork. Contrary to the Continental European civil law view that emphasizes the rights of authors, at the expense of rights of consumers or society, the common law and the economic view seek a balance between the rights of authors and the overall welfare of society. For that reason, copyright is limited in time and scope. Exceptions to copyright protection determine circumstances where no payment to the author is due. In the Continental view, these exceptions should be limited to circumstances where transaction costs exceed the benefits of licensing for the rights holders (Charles River Associates, 2014). In the economic view, exceptions can go further in order to ensure an appropriate balance between the static losses and dynamic gains of copyright protection and promote wider dissemination of the benefits of innovation in society.

Digital technologies create new means to reproduce and communicate copyright protected works to the public. The civil law approach would seek to extend authors' rights to claim remuneration for all these new uses. For example, the creation of a neighbouring right for newspaper publishers constitutes a de jure extension of the scope of copyright protection. The common law or economic view on copyright would not automatically grant an extension of authors' rights to remuneration for uses under these new technologies. Extending copyright protection to all forms of digital reproduction may defy the purpose of copyright as an instrument to promote innovation, not necessarily to maximize revenue of the rights holders. Economists would carefully examine the balance between static deadweight losses and dynamic welfare gains in the copyright equation. They would go back to the purpose of copyright and ask whether these new technologies affect that balance and reduce the incentive to produce innovation (Bechtold, 2016). A reduction in innovation has a negative impact on societal welfare. In the case of newspapers for example, a reduction in the number of new articles and in the variety of views expressed in news publications would constitute a welfare loss that requires intervention through further copyright protection. However, if no such negative effect on the supply of innovative artwork can be observed there is no a priori reason to extend claims.

Figure 1: Social versus private benefits of copyright protection



The policy gap between the civil law legal doctrine and the common law and economic view is illustrated in Figure 1. Too little protection stops innovation; that is bad both for authors and society. More protection boosts benefits for authors and society. The civil and common law view go hand in hand up to the optimal degree of protection P*. Beyond P* they split ways: more protection still benefits authors but reduces the wider benefits to society because it slows down further innovation. Consequently, in the economic view, the crucial test for an appropriate level of copyright protection is not the impact on revenue for authors but the longer-term dynamic impact on the supply of innovation for society.

Finding the optimal degree of protection P*, or the point where more protection becomes inconsistent with wider societal benefits from innovation, is an empirical question that cannot be settled through economic theory or legal reasoning. The impact of protection on the production of innovation or the supply of news articles is a crucial - but difficult - test for the justification of a possible ancillary copyright for newspaper publishers. German and Spanish news publishers did not reduce the production of news articles when Google News refused to pay a fee. They are under financial pressure because of other factors that affect newspaper revenues and that may affect the production of newspapers and news articles. It would be an error of attribution to hold news aggregators responsible for a decline in news output, if any, and give publishers additional copyright protection against aggregators in order to boost output.

Proponents of the civil law legal doctrine often argue that revenue for rights holders and the supply of innovation are positively correlated. In the digital age that is not necessarily true. The cost of production and distribution of media products has fallen substantially (Waldfogel, 2013). In that case, a fall in revenue does not necessary depress production. Music is a good example: revenue from recorded music sales declined significantly with digitization in the in early 2000s but music production increased (Aguiar & Waldfogel, 2014). A similar phenomenon may have occurred in news. The vast increase in online news sources may be an indication.

There are no statistics on the production of newspaper articles. There are statistics on the evolution of the number of newspapers and their circulation that show that both have declined (Cornia et al, 2O16. That does not necessarily mean that the supply of news has declined as many more new sources of news have become available online: TV broadcasters have moved online, new fully digital newspapers have emerged and a myriad of blogs comment on current events. Moreover, news articles are a heterogeneous product market with some degree of substitution between articles. Articles are not entirely unique products. They can cover the same event in different ways. The absence of statistics on news production creates a gap in our understanding of the dynamics of the newspaper industry in the digital age. It makes it difficult to judge whether there is a need to boost news production through additional copyright protection or other means.

Before concluding this section it is worth pointing out that copying news items is widely practiced in the digital age by all news media, including legacy newspapers publishers, radio and TV news channels. This is well-documented in a study of French news media by Cage et al (2015) who investigate the speed and modalities of online news dissemination. On average, it takes two hours for information published by an online media outlet to be published on another news site, but less than 45 minutes in half of the cases and less than 5 minutes in 25% of the cases. At least half of online dissemination is copy-and-paste and does not follow rules for citing and crediting. Information is costly to produce but cheap to reproduce. Copyright law does not protect facts, only the particular expression of facts by an author in a news article. Some re-writing, reduction to short excerpts or an appropriate reference to the original publisher might go a long way to satisfy the law though it may not change the information content of the article. Automated online aggregators do not re-write articles; that creates conflict with copyright law.

5. Market failures in online news publishing

In order to understand the potential impact of the introduction of a neighbouring right it is worth looking into the Spanish and German experience and why both failed to change the market situation. The European Commission (2016) argues that inequality in bargaining power between online news aggregator platforms and newspaper publishers contributed to this failure. In economic terms this could be translated into an abuse of dominant position by the news aggregators, or a market failure. If such a market failure is observed, this would justify government intervention in the market, either through competition policy instrument or regulatory interventions – such as a reform of the copyright law. The Spanish and German competition authorities addressed the issue of possible abuse of a dominant market position by Google Search and Google News and the need for intervention by the competition authorities or the regulator. Both come to a negative conclusion.

The Spanish competition authority (CNMC, 2014) issued an opinion that questions the economic foundations for the introduction of an irrevocable neighbouring right for news publishers in the Spanish intellectual property law. First, the CNMC observes that there are technical solutions (the introduction of a robot.txt file in a web page, or paywalls) that newspapers can apply to avoid that their articles are aggregated by online news platforms. This boils down to an opt-in/opt-out procedure, similar to the German newspapers case. The fact that newspapers do not use this means is an indication that the perceived benefits of aggregation exceed the costs – in line with the evidence presented in the previous section. The introduction of "irrevocable" legal means to achieve the same purpose would then be not only superfluous but could be harmful. Second, the CNMC notes that it is inefficient to let collecting societies fix an a-priori price for the remuneration of newspapers and not let the market work out a price. News aggregators generate traffic and revenue for news publishers' websites but it is very difficult to determine the revenue that news aggregators gain from specific news articles. Hence it would be difficult to work out the basis for the calculation of compensation. The CNMC concludes that there is no indication of a market failure in news aggregation because news publishers do not seem to actively oppose news aggregators. Consequently, there is no reason for regulatory intervention in that market. Moreover, the intervention through the modification of the Spanish intellectual property law creates new market access barriers, both for existing news aggregators and for new service providers. The CNMC recommends dropping at least the irrevocable character of the provisions and the intermediation of copyright management societies. The CNMC report correctly predicted the failure of the Spanish neighbouring right to generate any additional revenue for Spanish newspaper. Aggregators have no incentive to pay more for the news articles that the market price which happens to be zero. By making the remuneration irrevocable, the law disrupts the status-quo that emerged in the market and thereby introduces a new market failure.

A similar situation occurred in Germany when a revocable neighbouring right was introduced. The German case is more complex because if involves the Google Search engine too. Part of the debate is about the length of the news snippets that Google can extract from the article and put in Search. After the law came into force, VG Media, the collecting society for German news publishers associated to the Springer group, introduced a tariff of 11% on all ad revenue derived from news search and news aggregation activities in June 2014. The tariff was subsequently reduced to around 6% in October 2014. There was also a debate about the legality of the robot.txt protocol and what to do about the newspapers that do not include such a protocol in their webpages. Google eventually asked all publishers to sign a written contract with a zero price license under the "opt-in" clause, and all of them did in order to allow Google News and Google Search to continue linking to their news articles. The news publishers then filed a complained at the German competition authority about the alleged abuse by Google of its dominant position in the German market. The competition authority (Bundes Kartel Ambt, 2015) ruled that there was no need for action. Since the complaint went beyond Google News that is not ad-driven and also covered news articles snippets ranked in Google Search the BKarA examined the question from a multi-sided online platforms perspective. The different sides of the market (newspaper publishers as content suppliers, consumers, advertisers) cannot be considered as separate markets; they are linked by indirect network effects. One side (advertisers) may subsidize the other side (consumers), thereby increasing the welfare of all sides. Although the news publishers are not remunerated for their contribution to the platform, the BKarA still considers this to be a market, though with a zero price. It also considered that the "opt-in" procedure is a proportional measure that leaves newspapers free to decide whether they want to participate in the market. It concluded that Google does not abuse its market position and that there is no reason for intervention in this market. After the competition authority rejected their claim, the publishers around VG Media filed a new complaint against Google in a civil court in January 2016, claiming that Google owes them remuneration. This case is still pending.

Prices are settled in the market at the confluence of supply and demand. Market conditions may be such that the equilibrium price turns out to be zero, even if the producer of the copyright protected works has a clear and enforceable claim. Whether it is a "fair remuneration" is something that economics cannot answer. The BKarA reached the conclusion that there is no market failure and that zero can still be a market price because there are on-going transactions at that price. By bringing the collecting societies as intermediaries into the market process, the legislators in Spain and Germany have tried to increase this price to a positive non-zero figure. Collecting societies will obviously not work for zero remuneration, partly because they are private companies that have to cover their own operational costs and would like to earn a profit margin too. As the Spanish competition authority pointed out, the collecting societies create additional costs in the functioning of the market. That in itself is an inefficient solution because the market can clear at a lower cost, as it currently does with the robot.txt protocols. Regulatory intervention in the market, implemented via a collecting society, would make the market less efficient. If newspapers withdraw their consent, consumers and advertisers will suffer. So far newspapers in Germany opt-in and there is no loss of social welfare. In the Spanish case however, newspapers are legally not allowed to consent at a zero price and the entire market disappeared as a result. Consumers, advertisers and news publishers suffer a reduction in welfare as a consequence of the law.

This still leaves the question why news publishers could not monetize their newly acquired neighbouring rights in Spain and Germany.

Market power in multi-sided platforms may be one possible answer. Aggregators are platforms or multi-sided markets that bring different types of users together in a single market place: news producers, consumers and advertisers (Caillaud & Jullien, 2003; Rochet & Tirole, 2006). Typically, platforms benefit from direct (and indirect) network effects: the more users join the platform (on one side of the market), the more want to join (on other sides). Platforms also benefit from economies of scope in data aggregation (Martens, 2016). They can aggregate information across a wide variety of products and preferences across many users. That information can be plugged into algorithms in order to reduce the cost of matching different types of users: matching consumers with news articles, matching advertisers with consumers, etc. Bigger datasets often increase the efficiency of matching in very heterogeneous markets. The advantage for consumers is a reduction in search costs and lower switching costs between different suppliers of news. The advantage for news producers is access to a much larger potential audience than offline newspapers and individual online websites can reach (Cornia et al, 2016). News aggregation platforms enable more efficient matching between suppliers, consumers and advertisers, more efficient than individual newspaper websites and print editions. As such, they provide a compelling value proposition to all user groups. The flip side of the coin is that platforms seek to internalize part of externality benefits that they can provide to users by driving a wedge between the interests of different user groups (Parker & Van Alstyne, 2006). They maximise their own profits by eroding some of the potential benefits that users could achieve. This can be done for example through pricing strategies and the manipulation of search rankings (Ursu, 2015).

Parker & Van Alstyne (2005) demonstrated in their seminal paper on network effects in multi-sided platforms that the pricing structure in platforms depends on the price elasticities of the different sides and user groups in the market. The side with the lowest price elasticity – i.e. their participation is less sensitive to entry pricing - will usually end up paying the highest price for market access. In Google Search, advertisers pay a price for the ads they place. Information suppliers and consumers pay no price – though they both pay a relatively low price by contributing their private information. In Google News there are no ads and only publishers and consumers. Neither of them pays. However, publishers receive benefits from additional traffic and ad revenue to their websites. That makes them price inelastic too: a lower price, even a zero price, does not affect their participation because they still get benefits. That lowers their market power and reduces their remuneration, in this case to zero. Market participants with high price elasticities – i.e. their participation will be very sensitive to price increases – end up paying the lowest price. Consumers pay nothing. If aggregators would charge them they would probably unsubscribe in large numbers from the service. The zero price for news publishers could thus be considered as an economically efficient market outcome from the perspective of the Parker & Van Alstyne (2005) model.

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6. News aggregators and media plurality

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[redacted] That ranking is a form of news curation, similar to the role played by editors in legacy newspapers. Editors format and position articles and ads to reflect editorial preferences, newspaper branding and commercial interests. They decide to put some articles on the front pages or with bold headings that attract more attention while others are moved to less eye-catching formats and places. News aggregator platforms have no editorial line or brand reputation to defend; they mix articles from many newspapers. They only pursue their commercial interests which are linked to traffic and ad revenue. To the extent that they personalize rankings in function of consumer profile information, their rankings will be to some extent constrained by consumer preferences. Trending news articles will be pushed up the rankings and attract more expensive advertising. This drives a wedge between consumer preferences, news content suppliers' attempts at building editorial profiles and branding, and the commercial interests of the platform. Unlike in general search engines, such as Microsoft Bing and Google Search, there are for the time being no news aggregation platforms with an organic ranking of news articles, based on reader preferences and independent from advertising revenue.

There are two opposing approaches to rankings (Grimmelman, 2012, 2014). The "conduit" theory sees search engines as a passive intermediary that makes an "objective" selection of relevant articles in response to user preferences. The "editor" theory sees search as a subjectively curated ranking of articles with the algorithm as an active editor. The editor view implies that there is no such thing as search neutrality because any ranking represents the editor's view of what is best. Grimmelmann (2014) reformulates these theories in terms of freedom of speech, a relevant metaphor in the context of newspaper publishing: the conduit view lets newspaper publishers speak and the editor view lets the news aggregator's ranking algorithm speak. Search results are necessarily a combination of objective conduit and subjective editing. The ideal search engine – from a consumer point of view – would be a "trusted advisor". It should not mislead the consumer and present results that match his preferences. A search engine should fulfil that fiduciary role towards the user by "not letting its own conflicts of interest shape the results; it should not deliberately return results it knows not to be relevant; it must not misuse the search queries that is collects and must not conceal important results about how it generates results" (Grimmelmann, 2014). In other words, he reformulates the concept of search neutrality from the perspective of the consumer. Finally, he notes that a problem with search rankings may be that they are insufficiently personalised and cater to the average consumer only. Personalized rankings require access to more personal information, beyond the historical record of previous queries. This creates a trade-off between privacy and search efficiency. Can bias in news rankings be excluded? Supermarkets place products in ways that maximize supermarket revenue. Newspaper editors select articles that maximize sales. We accept these commercial strategies in offline markets but seem to be critical when they happen in online markets.

Several studies (Ursu, 2015 for Expedia; Chen et al, 2015 for Uber; Fradkin, 2014 for AirBnB) have found empirical confirmation for the view that search rankings in commercial platforms drive a wedge between the interests of suppliers and consumers, to the benefit of the platform operator. There are no empirical studies yet on news article rankings in aggregator platforms and how they affect the interests of the publishers and news readers. Such studies would be very useful to assess the impact of news aggregators on media plurality.

Even if an ideal news articles ranking could be defined, there is another problem. Rankings suffer from an inherent problem called "superstar economics" (Rosen, 1981). Rankings have a top and a tail end. Top-ranked products are called superstars. Empirical evidence shows that consumers have a tendency to consume top-ranked products as a way of reducing search costs. However, search rankings are endogenous and the direction of causality is not clear (Moraga-Gonzales et al, 2013): Does higher ranking increase consumption or do more frequently consumed items rank higher? Rankings may create a lock-in effect: popular products become more popular.

An important question is to what extent digitization and online search engines have favoured superstars versus long tail sales. Building on the contribution of Johnson and Myatt (2006), Bar-Isaac et al. (2012) address the relationship between search costs and sales concentration. Search engines and aggregators reduce search costs. They conclude that long-tail and superstar effects arise simultaneously, at the expense of the "middle" group of products. This increases the skewedness of the sales distribution though not necessarily the ordinal ranking of products in a popularity-based ranking. Lower search costs may also bring in more consumers. That may increase total demand but also upset the relatively popularity of products and thus their rankings. There is a debate among economists whether search engines and rankings increase or decrease the diversity of products consumed. Much depends on the design of the search algorithm. This is an empirical question to which there is no a-priori theoretical answer.

The Faustian deal that news aggregation platforms offer to publishers is a more important source of concern than their impact on revenue. Platforms increase audience reach and ad revenue for publishers; they reduce transaction costs for consumers. Neither party can refuse that deal because there are no better alternatives. The flip side of the deal is the loss of independence for publishers (Cornia et al, 2016). This may weaken their brand name as their content gets mixed with that of other newspapers and consumers lose awareness of the newspaper that produced the article. They lose editorial control over ranking that may be driven by superstar effects ("click baiting") and the platform's drive to maximize revenue from ads. Platforms collect a wealth of data on news readers. That enables them to do more targeted advertising. The news publishers have no access to these data. That weakens their own attempts at branding and marketing of their publications and further increases dependence on the aggregator platform.

Consumers gain in transaction costs but may lose because they get less of what they prefer and more of what generates ad revenue for the platform. It is not clear if aggregator platforms lead to more or to less variety in consumption. Economists have researched other media industries such as music and books to find out if a reduction in information costs results in more or less variety in consumption (for an overview of the literature, see Duch-Brown & Martens, 2014). There is no empirical research on this question yet in digital news.

In any case, these issues cannot be addressed through copyright or neighbouring rights. In fact, it is not clear if & how they can be addressed at all at this stage in our understanding of online news media markets.

7. Conclusions

The debate between newspaper publishers and online news aggregators is primarily driven by concerns about the decline in revenue and the longer-term financial sustainability of the newspaper industry as consumers and advertisers move from print editions to online news consumption. Copyright is perceived as a tool that could contribute to improving that financial situation. The introduction of a neighbouring right for news publishers would give a more solid legal footing to the right to remuneration for the reproduction of text snippets from their articles and communicating them to the public in general search engines and specialised news aggregation websites that reproduce parts of or entire news articles. That is what the German and Spanish government attempted and what the European Commission (2016) is now proposing at EU level. The Continental European civil law perspective on copyright does indeed emphasize the right of authors to remuneration for their works and the neighbouring right extends this to online publishing.

Whether they will be able to effectively monetize that right is not clear, as the German and Spanish cases show. The law creates a right but market forces have effectively valued this right at zero. In this paper we investigated if market failures are to blame for this situation. Based on the analysis of the Spanish and German competition authorities there is evidence that abuse of dominant market positions by news aggregators has led to this situation. On the contrary, regulatory intervention in the market to determine the price of a license and channel the remuneration via collecting societies might create a new market failure. Alternative explanations may be found in the mechanics of (news aggregator) platform economics. Platforms benefit from network effects and economies of scope in data aggregation across many users. This results in wider reach and lower transactions costs that individual newspaper websites cannot match. Platform services pricing will be driven by the price elasticities of different types of users, which may put newspapers in a weak position to leverage the value of their content. We should heed Merges' (2008) warning against "legal centrism", the belief that laws rather than market forces determine market outcomes.

There is no evidence that news aggregation platforms have a negative effect on revenue of newspaper publishers. The decline in newspaper revenue is driven by other factors such as increased competition between ubiquitous (free) online news channels, the shift in advertising revenue from offline newspapers to a variety of online services and the unbundling of print editions into separate news articles online. In fact, empirical research shows that newspapers benefit from news aggregation platforms in terms of increased traffic to newspaper websites and more advertising revenue. This has not entirely solved the question of ad revenue in general search. However the bulk of online news consumption is shifting to mobile news in social media platforms. Recent business models that focus on mobile news consumption share between 70 and 100% of ad revenue with newspaper publishers. It is hard to see how newspaper publishers could get a better deal, with or without neighbouring rights. Aggregators will never pay more to publishers than their own ad earnings. The flip side of these improved reach and revenue prospects is that publishers become more dependent on platforms as online distribution outlets. It weakens their brand image and their control over marketing and data. This may be a cause for concern in the longer run.

From a common law or more economic perspective on copyright, the key issue is not newspaper revenue but the supply of news articles. There is no empirical evidence that despite the fall in the number of newspapers and in revenue, the production of news articles has decreased. The decline in news distribution costs has led to new forms of news production and online distribution that complement and compete with legacy news publishers. From that perspective, an extension of copyright protection, for instance by means of neighbouring rights for publishers, might have a negative impact on social welfare in society, including on the distribution of news and on innovation in new production and publishing models. There are currently no statistics on the evolution of news markets that currently permit us to judge if there is a policy gap between the actual and the optimal level of copyright protection in news markets.

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Another important dimension of the policy debate on online news aggregators is their impact on media plurality and the diversity of news production and consumption. This subject has been somewhat side-lined by the focus on copyright extensions as a tool to boost the revenue of newspapers. While the evidence suggests that aggregators have increased overall revenue, it remains silent on the distribution of that revenue across articles and newspapers. Aggregators may promote diversity because they provide an overview of news across different sources. Consumers who go to a newspaper website would get only one source. However, aggregators' algorithms determine the ranking of articles and newspapers. This creates superstar and long-tail effects that are inherent to search rankings. As such they become "speech engines" (Grimmelman, 2014) that drive the composition of the basket of news articles that consumers access. We don't know enough about how the shift from legacy newspaper editors, who also put their editorial and commercial stamp on the ranking and formatting of articles and ads in newspapers, to algorithm-based ranking of articles affects news consumption patterns.

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