Mapping online journalism in transition

Exploring an analytical model

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Abstract

By operationalising Pierre Bourdieu's concepts of field, capital and positions of autonomy and heteronomy, and applying a Principal Component Analysis (PCA) to data gathered from a large content analysis, the article explores the relations between online newspapers and their corresponding print or broadcast versions within a constructed Danish "field of news" by graphically presenting the data as maps of the changes in these relations. First, mapping transformations graphically shows that the online newspapers have gained autonomy from their "parent platforms", but we see that in the same period they have increased their dependence on news agency stories. Furthermore, the mapping demonstrates how the online newspapers differ in terms of news productions strategies and in their relation to their parent platforms, meaning they take up different positions in the field according to their "strength" based on a number of indicators.

Keywords: field theory, online news, principal component analysis, convergence, field of news production, hierarchies of production

Introduction

When, in 2013, the Danish media organisation Politikens Hus introduced a payment wall on its online site, it did so against a backdrop of the increased success of the online newspaper Pol.dk over a 15-year period, and a decline in readership, and thus advertising revenue, of the printed paper. It seems that slowly but steadily the power balance between old and new media has shifted, but without a guarantee that the new platforms can compensate for losses elsewhere in the media organisation. Professional journalism currently finds itself in a fluid position, meaning the need to study this development historically and structurally remains as strong as ever. But how can we analyse such a transition and structural changes over time? And how can we capture the relational differences between different media organisations and platforms, and changes over time, within our analytical questions? In this article we argue that operationalising Pierre Bourdieu's Field Theory, and utilising a Principal Component Analysis (PCA) to construct a Danish "field of news", are valuable tools in providing at least some answers. Due to the article's explorative nature, we are not in a position to provide empirical conclusions on structural changes in Danish news production; to do so would require

many more indicators and a lengthier study. However, we can identify minor changes and, more importantly, the mapping method allows us to explore the *relations* between these changes over time.

The advantages of analysing data relationally and displaying it in map form are in sociology best known from the correspondence analysis of Pierre Bourdieu (Bourdieu 1984, 1986 and 1988). In media studies, this type of data analysis has only been developed into more advanced theories of, for example, "The Journalistic Field" (see Benson and Neveu 2005) in the last ten years. However, researchers adopting these theories have continued to focus on data relating to individual journalists, such as that gleaned from survey questionnaires (see Hovden 2008; Wiik 2010), or on the long-term development of specific types of content, for example financial stories (Slaata 2003) or a rise in health journalism (Marchetti 1997, 2005). In another branch, scholars have worked with the more anthropological studies of Bourdieu, often looking at *production* of content for different media platforms, including newsroom ethnographies (see Schultz 2006; Hartley 2011). In this article we argue that there is a need to bridge production and content studies methodologically if we want to empirically understand how professional journalism changes over time, and the analytical model explored here aims to achieve exactly that. Thus, the model for analysis enables us to explore specific forms of content *and* their relation to factors of the *production* and *usage* of this content. We do not argue that this type of analysis can replace correspondence analysis or newsroom ethnographies in journalism research, but that the model can be used in combination with other methods and thus, for example, provide a more historical and structural view of the relation between different factors involved in the production of media content over time. Additionally, this could provide an insight into a broader field of study than ethnography can offer, and thus allow for some generalisations and shed new light on the single or multiple case studies.

When ethnographic observations reveal that online journalists feel inferior to journalists working on offline platforms, but that they also feel an increasing respect for the online platform over time (see Hartley 2011), a PCA provides a way of putting such case-specific data in perspective. What has happened in the production of news that has led to this change in perception? How have the relations between different "forms of capital" changed during this period, and what does this mean for the positions of the different online newspapers and other platforms in the media organisation? This article explores changes over a relatively short period (2008–2010), and in future research the model could be expanded both in terms of the number of indicators and the historical period studied.

Following a literature review, the first part of the paper briefly maps the theoretical and methodological frameworks. The second part of the paper provides the results of the content analysis and presents the explorative maps of "the Danish news space" constructed on the basis of these results using a PCA. The content analysis consists of a coding of news production from print, online and television platforms of six major Danish media organisations. This is elaborated in the methodology section of the paper. The final part of the paper offers up conclusions and discusses ideas for further development of this analytical model as a useful tool in online journalism research, and journalism research in general.

Literature Review

According to David Domingo (2006), online journalism research has had, since the early days of research into this sub-field of journalism, a particular methodological focus on content analysis of the features of online newspapers. Less often, researchers have compared online and offline content, but the few studies carried out within a European context showed that much of the online production was shovel-ware from the printed newspaper (see Neuberger et al. 1997; Van der Wulf & Lauf 2005). Much of the online production was also distributed from wire agencies, and the sources were much more diverse in the printed version, as Barnhurst (2002) showed in the US and Gasher and Gabriele highlighted in Canada (2004). Lim studied four American online newspapers and revealed how similar their content was and how they seemed to prioritise different news stories in the same way (Lim 2010). Furthermore, studies from the US have considered the differences between local and national online and offline newspapers, concluding that the online newspapers had a much more local outlook than their printed counterparts (see Singer 2001; Gasher & Gabriele 2004).

In the Scandinavian context, researchers have often been interested in measuring the level of hypertextuality, interactivity and multimedia on websites from a historical perspective (Eriksen & Ihlström 2000; Engebretsen 2006). Based on a study of online news production in Spain, Domingo points to the fact that "digital utopias" often dominate researchers' strategies, as they assume the digital possibilities inherent in the structure of the Internet will also affect journalism in a positive manner. Thus, the historical perspective consists of a measurement of how far the online newspapers have moved towards the end goal of a truly multimedia, interactive, hypertextual and immediate coverage of news – a true digital utopia. However, many studies conclude that online journalism remains far-removed from this digital utopia, and they have been criticised for failing to question the inherent assumptions, or why these ideas remain utopian (Domingo 2006; Hartley 2011). This can partly be explained by the theoretical perspective of many of the more descriptive studies of the 1990s, as they were often chiefly concerned with questions of technological innovation. It can be argued that sociological analytical perspectives have been overlooked in the analysis of media content in general, as the focus has been on the specific news article and the website affordances rather than online news production as a process.

In Denmark, very few studies have looked into the online media as a news provider, despite its increased popularity over the last 15 years. One study compared the two public service channels and their online content (Bang 2008), and showed that a limited amount of material was parallel-published online, which was seen as a negative consequence of the lack of collaboration between online and television staffers (ibid). Another study considered the development of the online newspaper within the structural framework of media history (Falkenberg 2009), while a third compared content across online newspapers, but did not compare this to the content production of other media platforms (Hartley 2011). The latest study of online news is following in the footsteps of the website affordance tradition, using content analysis of specific case studies to investigate the use of interactivity, hypertextuality and multimediality on Danish online news sites (Kammer 2013).

This article aims to fill this gap by exploring an analytical model where the different online and offline news sites, and their relational differences, can be analysed using a

number of indicators that could be expanded almost endlessly. The analytical model provides us with ways of comparing online newspapers across the "Field of News", and the means to establish the degree of relatedness of online and offline media platforms belonging to different media organisations. Thus, the aim of this paper is to contribute to the methodological and analytical developments in the field of online journalism research. The theoretical contribution consists of an operationalisation of some key concepts in Pierre Bourdieu's Field Theory, and applying these to a specific study of Danish news production.

Theoretical and Methodological Framework

The theory behind the development of the analytical model presented in this paper is Pierre Bourdieu's Field Theory. The field is seen as a hierarchical social field, where each position is defined by its relation to other positions (Schultz 2006, 2007). Following Bourdieu, we can take an empirical approach to the relatively open concepts of field, capital and habitus:

> "(…) Concepts have no definition other than systematic ones, and are designed to be put to work empirically in systematic fashion." (Bourdieu and Wacquant 1992: 96)

The concept of field is first of all a corrective against positivism. Fields are conceptual constructions based on the relation mode of reasoning. "To think of field is to think relationally," Bourdieu stressed (Bourdieu & Wacquant 1992: 96). They illustrated Bourdieu's relational logic by encouraging the researcher to seek out underlying and invisible relations that shape action, rather than properties given in common-sense categories. Bourdieu wanted to draw attention to the latent patterns of interest and struggle that shape the existence of these empirical realities. Positivist conceptions of social location, such as "milieu", "context" or even "social background", fail to highlight the conflictual character of social action. However, we need to operationalise the concept of field into a number of indicators to study what is at stake within a specific field, i.e. the specific conflictual oppositions of, for example, the journalistic field and how different individuals or organisations are positioned within it. Bourdieu introduced the concept of "geometric data analysis" in his studies, the idea of using many indicators to construct a multidimensional social space, where the planes marked the most important structural oppositions – or forms of capital – within this space (Lebaron 2009).

Employing Bourdieu's ideas, Dominque Marchetti (2005) suggested a number of indicators that can be used to map the relational differences within a field in an analysis of the different forms of capital in, for example, the journalistic field, and further noted that it might be helpful to look at specialised forms of journalism as sub-fields. In our analysis, we therefore look at "online journalism" as a specialised sub-field. Marchetti argued that the sub-field's capital can be established using various indicators, such as the number of journalists dedicated to it, the number of exclusive news stories covered, and economic factors, such as the amount of readers and subscribers and the income derived from advertising (Marchetti 2005: 79). From a field perspective, we can view the number of exclusive news stories as an indicator of the specific capital of the journalistic field – *journalistic capital* – while factors such as users and advertising income

can indicate the level of *economic capital* in the "field of news". Several ethnographic studies confirm that the number of "exclusive" stories is a dominant form of capital in the Danish journalistic field (Schultz 2006; Hartley 2011). Following Marchetti and Schultz's analytical points, we can translate these into a number of indicators with which it is possible to obtain data over time.

In this way, we operationalise Bourdieu's concept of *capital(s)*, but due to the explorative nature of this study we use only a few key indicators of economic and journalistic capital (many more could be added), which are shown in Table 1. Some indicators had to be translated into coding parameters, others had to be examined on the basis of statistical data – media use, for example – and yet others had to be obtained directly from the media organisations themselves, such as the number of journalists, and how many have been working for the different media platforms. All these indicators are measurable on a scale, allowing us to use a PCA (Le Roux and Rouanet 2004) to map the different positions of online media. Compared to the traditional methods of presenting content analysis, the advantage of a PCA is that we can analyse what the *relations* are between the different indicators, and can include indicators that would ordinarily appear out of context in content analysis. In theory, you could include personal information relating to individual journalists – including their age, gender or even how they dress – although in practice this might be problematic. This means a PCA is thus able to show how, for example, an indicator such as the "amount of sports stories" is related to "revenue from advertising" or the "gender of the journalists" working for specific publications.

Analytically, a PCA enables us to use the selected indicators to construct a space and thus operationalise the concept of *field*. Put in a non-technical way, the space constructed will place indicators with the greatest associations nearer each other, or on the same plane or dimension in the "map", while there will be more distance between negatively related indicators. The different planes or components are analysed according to their explanatory value, measured as the percentage of the total co-variation in all the included variables associated with the particular plane. All components explaining more than one indicator – an eigenvalue above 1.0 – are included in our analysis. In all three analyses this criteria yields a two-dimensional space, see table 2. This enables the researcher to construct spaces of relations and then explore how other indicators not used in constructing this space, called supplementary variables, and the different news media outlets – a "cloud of individuals" (Le Roux and Rouanet 2004: 133) – are positioned in this space. The PCA will position news media outlets with similar characteristics based on the active variables (see Table 1) (e.g. the number of users or share of original production) near each other in the constructed space. To obtain a number of indicators related to the production of news we chose to conduct content analysis, and this is elaborated in the following.

The content of six major Danish online newspapers were coded for one week in November 2008, providing a total of 2343 news items, and again for one week in 2010, when a total of 5200 news items were coded. In 2010, we also coded the content from the corresponding newspapers and TV bulletins within the media organisation. The coding was carried out using SPSS, and the six online media outlets chosen all belonged to major and established Danish media organisations: *Eb.dk* is a tabloid, *Dr.dk* is the Danish public service broadcaster, *Tv2.dk* is the competing advertising-funded public service broadcaster and *Pol.dk, Jp.dk* and *Berlingske.dk* belong to print media houses

publishing national broadsheet dailies. They were chosen with the aim of obtaining "maximum variation sampling" (Lindlof & Taylor 2002: 123), but they needed not to be *too* different. They were also chosen because they are the largest sites in terms of the number of users. Data was also gathered from *Nordjyske.dk* in order to include a regional cross-media organisation publishing a regional daily and broadcasting a 24-hour news channel. However, their regional status means they are not homogeneous enough with the other online news sites to be included in a PCA construction of the field (cf. Le Roux & Rouanet 2004: 277). The coding parameters were first of all the source of the news items, but also "subject area", including, for example, how many news items were "sport", "politics", "international", "business", "crime" and so on. To obtain a data set consisting only of news items, as opposed to other genres (feature, analysis, etc.), we only coded the main news sites and not the theme-oriented sub-sites. For newspapers, the first main section was coded, and with regard to TV news we chose the main evening broadcast (and thus omitted, for example, the 24-hour news channels).

Table 1. An Overview of the Different Variables Used in the PCA Analysis in 2008 and 2010

	The digital field of production	
	2008	2010
Economic capital	The number of users/viewers/readers	The number of users/viewers/readers + the original media platform (newspaper, television news bulletins)
Journalistic capital	The number of journalists	The number of journalists
	The amount of exclusive news stories/own production	The amount of exclusive news stories/own production
	External quotes (shovel-ware)	External quotes (shovel-ware)
	Internal quotes	Internal quotes
	Amount of stories from news agencies	Amount of stories from news agencies
	Subject areas	Subject areas
		+ The original media platform (newspaper, television news bulletins)

Findings: Production and Distribution

The content analysis shows that some sites are more dependent on agency production than others. It also reveals that the media organisations have different strategies in terms of how much they distribute from online to print and vice versa. From a field perspective, this can be interpreted as some online media being more autonomous than others. In 2008, the percentage of news agency shovel-ware was between 29 per cent and 62 per cent on all the sites. By 2010, the main news agency in Denmark, Ritzau, appears to have increased its position in the field, as the online sites have decreased their level of shovel-ware from the other platforms (print and television), and during this period have

increased their dependence on news agencies (the percentage of news agency articles in 2010 ranged from 36 per cent to 66 per cent).

In addition, from a field perspective we can take the "quoting" of a media organisation as a positive sanction by its competitors. When a story is cited, it is recognised that the cited media had the story first, and that it is a "good" story worth citing (Bourdieu 1998 [1996]: 94). The same mechanisms are seen in Shultz's news ethnography of Danish journalists (2006) and Hartley's study of Danish online journalists (2011). Thus, if we consider how the different online newspapers are citing others, and to what extent they publish stories from competing media, we can map their relational positions with regard to this indicator[1] and the level of news agency usage.

The sites are publishing content based on quoting stories from competing online sites at levels ranging from 7 per cent to 40 per cent. Therefore, there is a vast difference between the online newspapers with regard to their original journalistic production of news. However, in 2010, most of the online newspapers have increased the amount of original production and decreased the use of news stories from competing media organisations.

Above we referred to a number of studies that have researched what might be labelled "internal distribution" – in other words, the amount of news stories directly distributed, without changes, from the offline media to the online media. In comparison with these studies, Denmark is no different. The percentage of internal distribution of news from offline to online, in other words the number of stories published directly from the "parent" platform to the online platform, varies between 47 per cent (in 2008) at the online newspaper *Jp.dk* (by 2010 this figure had decreased to 3 per cent) and 3 per cent at the online newspaper *Politiken.dk* in 2008 (although by 2010 this figure had increased to 15 per cent). The stories taken from the printed paper are often published automatically in the middle of the night or in the early morning, thus ensuring that readers do not feel they get exactly the same product in the post-box as they could have read online hours before. As with the wire service distribution, all online newspapers analysed in this study decreased the amount of stories taken from the printed paper between 2008 and 2010. Interestingly, the traffic of news stories only goes one way, as the offline counterparts only published between 1 per cent and 4 per cent of stories produced by online staff in 2010. This confirms the status of online newspapers as merely *distribution* channels in the Danish field of news, while the television and print platforms are *producing*. However, the analysis shows that this did alter from 2008 to 2010; the online platforms have become more independent in terms of production, echoing the fact that there are more journalists working for the online platforms, and an increased amount of readers (Hartley 2011).

Table 2.   *The Three Principal Component Analysis of the Field of News*

|	Component 1	Component 2	Component 3	Component 4
2008 Online media				
Eigenvalue	2.88	1.74	0.93	0.43
Explained variance (%)	48.0	29.1	15.5	7.2
Coordinates of active variables				
Original production	-0.524	0.769	-0.321	-0.172
Internal shovel-ware	-0.576	-0.645	0.498	0.051
External shovel-ware	0.878	0.334	0.310	-0.125
News agency articles	0.575	-0.467	-0.606	0.290
Users 2008	0.770	0.452	0.327	0.301
Journalists 2008	-0.760	0.449	0.076	0.460
2010 Online media				
Eigenvalue	2.98	2.27	0.72	0.03
Explained variance (%)	49.7	37.8	12.0	0.4
Coordinates of active variables				
Original production	0.869	0.414	0.262	-0.067
Internal shovel-ware	-0.025	0.985	0.131	0.110
External shovel-ware	0.514	-0.777	-0.357	0.066
News agency articles	-0.997	-0.024	0.054	-0.046
Users 2010	0.447	-0.624	0.640	0.028
Journalists 2010	0.876	0.365	-0.312	-0.036
2010 with parent media				
Eigenvalue	3.85	1.26	0.57	0.34
Explained variance (%)	61.6	21.2	9.6	5.6
Coordinates of active variables				
Original production	-0.967	-0.003	0.017	0.245
Internal shovel-ware	0.532	-0.606	0.591	0.016
External shovel-ware	0.414	0.834	0.289	-0.220
News agency articles	0.851	-0.326	-0.355	-0.188
Users 2010	0.834	0.318	0.000	0.423
Journalists 2010	-0.941	0.015	0.122	-0.134

In conducting the PCA we used these indicators to create a map of where the media organisations and platforms are situated in relation to each other. The analysis has the purpose of graphically demonstrating the improved position of online newspapers, and providing important insights into the disparities between the different media organisa-tions and the strategies of journalistic production for their online platforms. However, as we only included six cases, the PCA should not be regarded as a statistical analysis-testing hypothesis due to the sensitivity to variations in the small sample. Rather, it should be taken as a description-oriented method of reducing dimensionality in the description offered by the content analysis by both summarising the set of variables and

fitting the cases into a graphical illustration of components (Le Roux and Rouanet 2004: 133) for identifying central oppositions in the *forms of capital* – and the cases within the field – presented above. To find these central oppositions in the Danish field of news, the data was analysed and graphically displayed using the R package FactoMineR.

The Map of Relational Differences

Figure 1 shows which indicators structure the relations between the different online media in the Danish field of news. These are marked in solid black type, and the indicators that contribute most to the construction of space will generally have the longest lines. Indicators of prioritising different content, which helps our interpretation of the space, are marked with dashed lines. It is a constructed field and shows the *relatedness* of the different indicators. For example, the indicator "journalists 2008" – the amount of journalists – is near to the level of "production". In other words, more journalists equates to a greater amount of original journalism. This may not be surprising, but the PCA graphically displays how the different online newspapers are positioned in relation to each other when it comes to prioritising original journalism on a continuum, and it adds another dimension as the constructed space has both a vertical and a horizontal component. Thus, by adding the other dimension and creating a space, the PCA shows that this does not seem to influence the amount of users. In other words, original journalism matters for the journalists and some of the media organisations to a varying degree, but not for the users and readers, who seem to care little for original journalism.

Figure 1. *Analysis of Online Media 2008 – Coordinates of Active and Supplementary Variables*
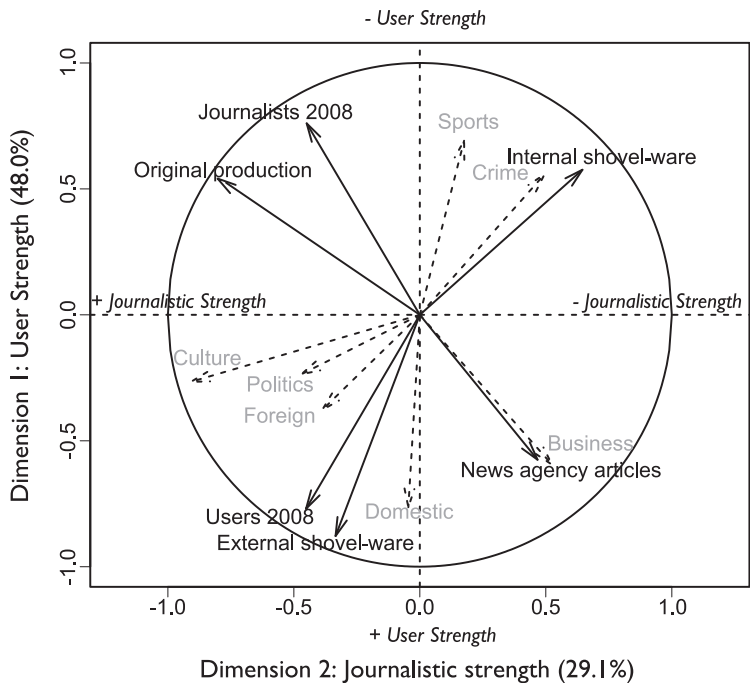
Towards the bottom left hand corner of the Figure 1 "map" we find the amount of users and quote stories, which indicates a correlation between these two indicators, suggesting that users – paradoxically – are attracted to the online media most tempted to use stories from other sources. These are again also placed in opposition to the internal shovel-ware (the publishing of news stories from the printed paper or the evening television news bulletin). In other words, a bigger online desk means more original online journalism and less need to re-use stories from the "parent" media platform. This form of converged news production and sharing of content negatively influences users, and to a greater degree than a high level of shovel-ware.

Figure 1 illustrates how each variable, through the factor loadings of the PCA with 2008 data, projects each online newspaper onto a map of online media, as shown in Figure 2. This means the oppositions in forms of capital in the constructed field stand out more clearly, and provides the positions of the online newspapers, i.e. how much and which combination of the two forms of capital they have. On the vertical component (Axis 1) we find a contrast between on the one hand external shovel-ware, number of users and proportion of news agency articles, and on the other hand number of journalists and proportion of internal shovel-ware and original production. We can identify a contrast between strength in users gained through external news channels and journalistic strength, which signifies that the different online news sites have different strategies of production. However, this contradiction is modified on the horizontal component (Axis 2), which primarily contrasts original production with internal shovel-ware and news agency articles. Here, the number of users and journalists is close to the pole of original production, thus creating a two-dimensional field – shown in Figure 2 – vertically distinguished based on popularity (+user strength vs. –user strength) and horizontally on the strength of journalistic profile.

Figure 2. *Analysis of Online Media 2008 – Coordinates of Online Media*
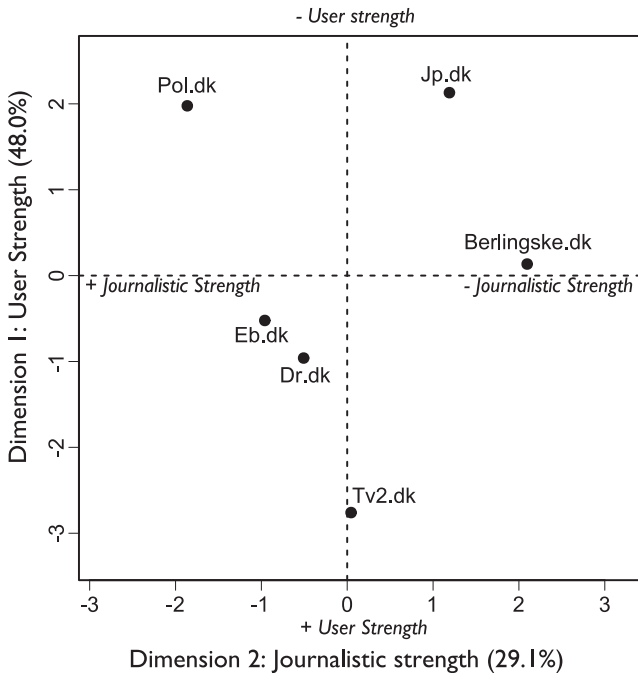
In the following section we will present findings regarding the relational differences between the online newspapers based on the content analysis and the indicators summarised above. Figure 2 can be seen as a "map" of the online newspapers in the field of news based on the variables related to economic and journalistic capital (Table 1).

The horizontal component in Figure 2 is constructed by the relational opposition between "users" and "quote stories" vs. "distribution for other internal platforms" and "wire service stories". This places *Dr.dk, Pol.dk, Eb.dk* and *Tv2.dk* in opposition to *Berlingske.dk* and *Jp.dk*. The vertical component is constructed by the relational opposition between the indicators "original journalism" vs. "users", "wire service stories" and "quote stories", and places *Pol.dk* and *Jp.dk* in opposition to especially *Tv2.dk*, but also to *Dr.dk* and *Berlingske.dk*.

Figure 2 (based on the 2008 analysis) shows how the number of stories cited from competing media relates to reader numbers, and that these indicators are in opposition to the indicator "original production"[2]. Thus, the online newspapers can be positioned in one of two groups – one focusing on original journalistic production and another that is less concerned with original production but which is able to attract more users nonetheless. From a field perspective, we can see this as two ways of achieving and optimising both journalistic capital and economic capital in terms of users and readers. The online sites placed lowest in Figure 2 – close to both the journalistic strength pole and the user strength pole – are the online sites of the two major Danish broadcasting institutions and those of the tabloid newspapers.

In Figure 1, the indicators "number of journalists" and "original production" were placed almost diametrically opposite the amount of "news agency articles", which shows they have a strong negative relation. The online site *Pol.dk* is almost alone in the left hand corner of the constructed space in Figure 2, indicating its specific focus on achieving a strong journalistic profile rather than pleasing readers with as little journalistic recourse as possible.

This places them in opposition *Tv2.dk* – the online site of the second Danish public service broadcasting institution, which seems to have a strategy of increasing economic capital and thus downplaying the importance of a strong journalistic profile. The advantage of the analytical model is that it shows the relations with regard to a number of indicators taken together. It visualises the structures in the "field of news", as the PCA outlines the strongest oppositional indicators as component 1 and the second strongest as component 2. Analytically, we can thus map a difference between online newspapers as being more or less converged, e.g. producing original journalism for the online platform alone, or using the different platforms as *distribution* channels.

The map (figure 2) indicates that we can differentiate between two strong main axes, one based on the relation between users and internal shovel-ware, and the other on the oppositional relation between internal shovel-ware and the number of journalists and original production of news. The two axes above can be interpreted as user strength (the ability to attract a high number of readers and users to the site) and journalistic strength (the ability to produce original journalism). The user dimension pulls online media sites towards the right of the map, and the journalistic strength component pulls them towards the left. The sharing of content across platforms in the most converged media houses pulls the newspapers towards the bottom, and so do a high percentage of wire agency stories to an extent.

Another interesting result from the mapping is that it seems shovel-ware from the printed newspapers does not necessarily please the users. These two indicators are in opposition to each other, which places online newspapers with a great deal of shovel-ware from the printed paper at the bottom of the map, and those with a lower percentage of articles from television or print platforms in the upper part of the map. If we compare Figure 1 and Figure 3 (below), we can see how the strength of the two axes changes from 2008 to 2010. The difference between the "journalistic axis" and the "user axis" is even stronger – the sharper the angle between the different indicators placed in the map, the greater their differentiation.

Figure 3. *Analysis of Online Media 2010 – Coordinates of Active and Supplementary Variables*
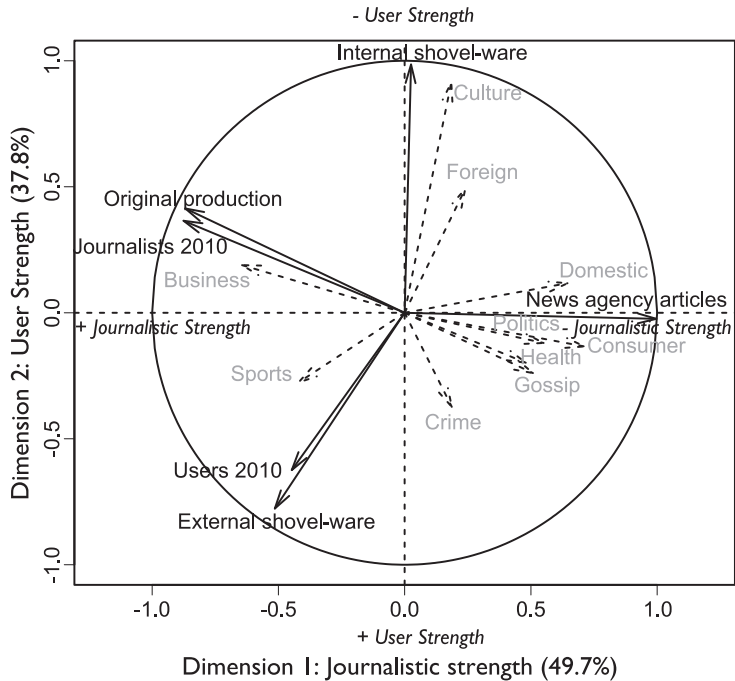
The map of Figure 3 shows that having many journalists is polarised from the indicator "news agency articles" to a greater extent, and it also reveals polarisation between the external shovel-ware and internal shovel-ware indicators. The PCA is thus able to show how the focus of the online newspapers differentiated during this two year period, and how the choices they make on a daily basis – for example, whether to quote a competitor or publish their own take on the story by, for instance, calling another source – has a structural influence on their relational position in the Danish field of news. Taken together, most of the online newspapers have become more *producing* and less *distributing*, as also seen by the general rise in original production from 2008 to 2010. Figure 4 shows the different positions of the online newspapers in 2010.

Figure 4. *Analysis of Online Media 2010 – Coordinates of Online Media*
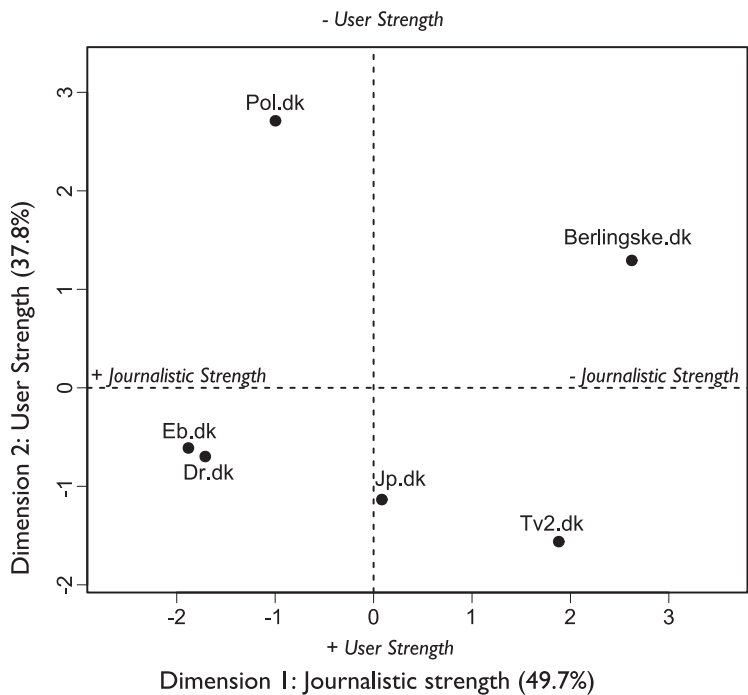

Figure 4 shows that the two axes remain the same (but as in Figure 3, more polarised), with *Pol.dk* moving towards the middle of the map because of the decrease in its original journalistic production (in terms of the percentage, not relative numbers). *Dr.dk* has equally moved towards the middle and closer to the tabloid online newspaper *Eb.dk,* and interestingly the public service online newspaper *Dr.dk* and the tabloid paper share features when it comes to journalistic and user strength. When the online newspapers add journalistic resources to the production they move to the left of the map as they become more autonomous (from the printed paper, other media organisations and the market in terms of users).

During the period, *Tv2.dk* has reduced its journalistic strength but increased in user strength (economic capital), and strictly speaking, an online newspaper can maintain its user strength even when it employs few, or no, journalists. However, it should be noted that the credit given to specific media platforms in the form of quotes and citations from other media sites becomes rather difficult without sufficient original content. In that respect, one could argue that some online newspapers are free riding by taking advantage of the journalistic work of their competitors. In the following section of the paper we will compare the online newspapers with their printed or broadcast counterparts, which we have labelled "parent" media.

Expansion of the Field of News

To compare the production details of online and offline platforms we chose to analyse the content of the printed papers and the main evening news bulletins of the two televi-

sion channels included in the study. This illustrates first how the axes are even stronger (the differences between the different media platforms are much more pronounced), and second how this places the online newspapers at the bottom of the map and their corresponding offline platforms at the top. The online newspapers thus have more in common (are close together on the map) and differentiate themselves from the "parent" platforms based on the chosen indicators. Figure 5 below shows the strength of the axes.

Figure 5. *Analysis Including Parent Media 2010 – Coordinates of Active and Supplementary Variables*
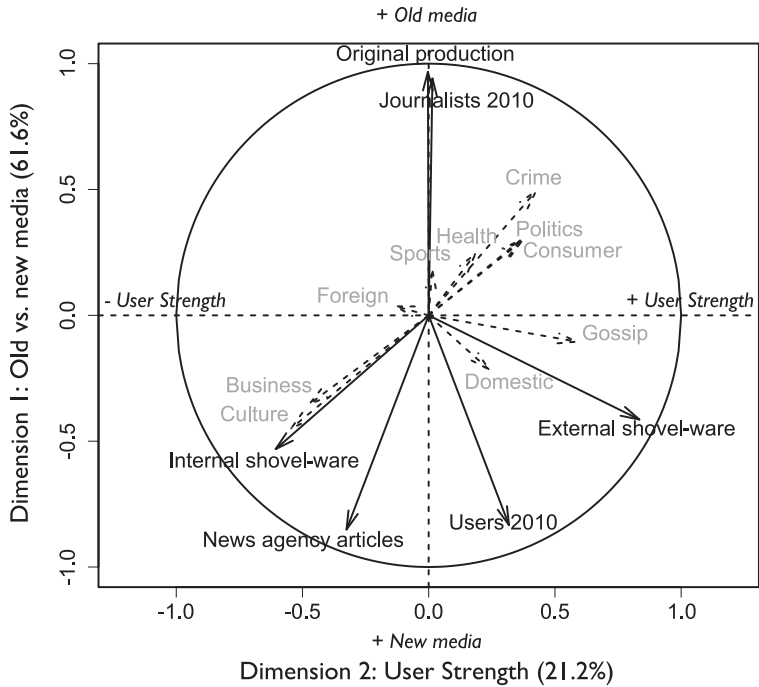
Component 1 (vertical) is now the opposition between originally produced journalism and wire service stories, and between users and both types of quote (internal and external). The construction of component 2 is based on an opposition between users and external quotes vs. internal quotes and wire service stories. We see that the axes are the same, but now the journalistic component has become stronger than the user component (which transposes them within the map).

   More journalists thus equal fewer wire stories, and this becomes even clearer when the "parent media" are included in the analysis. A content analysis would be able to indicate this simply by comparing the number of original stories with the number of journalist employed. However, the PCA allows the researcher to consider many indicators taken together and to visually present the closely related indicators, and the online newspapers that are most similar and most different, based on all the chosen indicators. The next step is to place them in relation to each other in the expanded field of news.

The different media organisations and their platforms place themselves along the two axes. Component 1 (vertical) represents an opposition between the original journalistic production and a high number of journalists (the journalistic strength) vs. desks and organisations with higher dependence on news agency stories and internal and externally cited stories (and to an extent, user numbers). The horizontal component 2 places the media platforms along an opposition between external quotes to the left and internal quotes and news agency stories to the right.

Figure 6. *Analysis of Including Parent Media 2010 – Coordinates of Online and Parent Media*
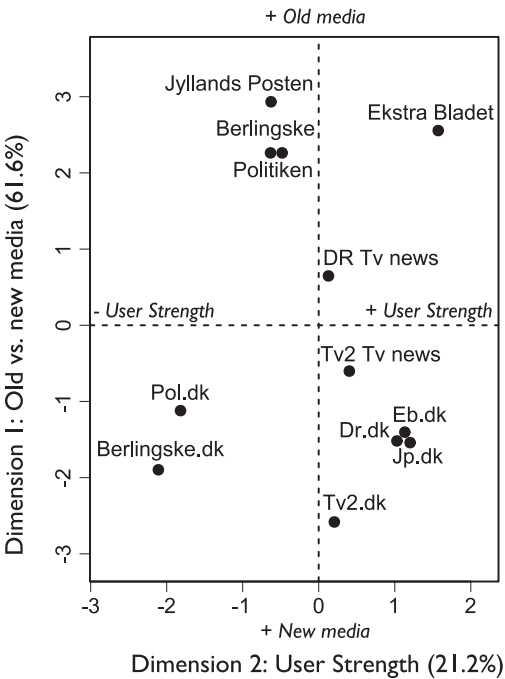

Figure 6 shows us that the older media platforms are more closely related with regard to the journalistic and user strength, and that the online newspapers are equally related. We also see that both television channels (TV 2 and DR) are closer to the online newspapers than the printed papers in their "journalistic strength". The visual presentation of their positions in relation to journalistic and user strength provides a differentiation between new and old media and between tabloid and broadsheet media. Old media has more journalistic strength than new online media platforms, and both new and old platforms take different positions in the Danish field of news when it comes to user strength. Theoretically, we can understand this as a field of relational differences in journalistic capital and economic capital, with the old media being dominant in both forms. However, some online desks appear more similar to some old media platforms. For example, we see that broadcast news bulletins are "closer" to online news sites in the production hierarchy, and a hypothesis could be, that the closer online and offline desk are in the maps, or at least the closer in the same side of the map, the less tension over strategies of production.

Conclusion

In this article, we have revealed how online media differentiate themselves according to their different strategies for online news production, and thus take different relational positions in a constructed Danish field of news. The analytical model used in this study has, in an explorative manner, emphasised how production indicators can be analysed quantitatively, and revealed how a number of online and offline media platforms differentiate themselves. It has also shown how different platforms are connected in the ecology of news production, and revealed certain "hierarchies of production" and how different news sites are positioned in relation to two major, dominant forms of capital in the field. Furthermore, the model has traced how a number of Danish online and offline media platforms have evolved over time.

From a field perspective, we can view the development from 2008 to 2010 as the result of the increased autonomy of the online platforms within the media organisations. The question is whether this increased autonomy means a less converged newsroom, and whether that goes against a European tendency towards more convergence as media organisations attempt to increase efficiency. The answer is both yes and no. The fact that the online platforms are producing a greater amount of original material does not mean there is less convergence. It means the positions and the strategies of production inside the media organisation are altered, thus changing the "production hierarchies". Where the online platform historically often took the distribution role, they seem to have adjusted their position to became more *producing*, in turn making the printed paper more *distributing*. As such, each of the platforms and the general news ecology in a news organisation can be analysed in terms of these production factors, indicating the degree of independent and cross-media production. In theory, an endless number of indicators are possible (although potentially this requires a more complicated factor-analysis or geometric data analysis, rather than a PCA), and one could in cases of multi-platform production have a category for a particular indicator. An example could be that one journalist produces a story for both print and broadcast, as with more detailed analysis it would be interesting to code and map how this story changes through the news ecology and what this means for the positions of the different platforms and news organisations. How are these different versions of the story linked to the users and readers of news?

On the other hand, it seems that Danish newsrooms at least are moving away from media convergence towards separate production processes for online and print platforms, and thus consideration of this depends on what one understands by convergence. In future studies, we must try to conceptualise this term further to avoid a diluting of its explanatory power in the research on online journalism production. It is too easy for media organisations to proclaim "media convergence" and for researchers to take this term literally without actually analysing what it means for the organisational structuring of news production. How should we account for the different ways of telling a story for online, print and broadcast news? Does telling one story on several platforms require more in-depth journalism than telling the same story in the same way on the different platforms? And how do different ways of storytelling and presenting news relate to audiences and advertising revenue?

Theoretically, the contribution of this article has been to emphasise how we can operationalise Bourdieu's concepts of *field* and *capital* into the specific area of journalism and news production, and more indicators could expand the analysis, for example the number of sources, the length of the news item or advising revenue. In future research it

would also be fruitful to operationalise the concept of *habitus*, with indicators including information about the journalists, such as age, gender or educational background. This would raise questions of whether younger female journalists are more inclined (related) to write stories on softer issues, with fewer sources, or whether producing news within certain subject areas influences the advertising revenue, and to what degree this is linked to possible payment walls or paid subscriptions. All these questions and many more can be explored analytically using the model tested in this paper, supplemented with greater qualitative analysis of the actual production, and the resulting maps will provide visual representations of the social world.

Notes

1. It was only possible to code the quoting where the online journalists were honest about where they got stories. The analysis thus tends to favour the less honest sites that hide the origins of stories. However, focusing on one week and considering the overlap of news agendas across the media landscape made it easier to detect non-original stories on that specific site, even when they may have initially appeared to be original.
2. "Original production" is the coding category that remains when the other news items have been coded as either "quote stories" (external and internal) or "wire stories".

References

Bang, J. (2008) 'Web-nyheder og tv-nyheder på DR og TV 2' (Web-news and TV News on DR and TV2), in Holm, H., Svith, F. and Kartveit, K. (eds.) *Når nyheder bliver til – På DR og TV 2* (When News is Produced – At DR and TV2). Århus: Ajour.

Barnhurst, K.G. (2002) 'News Geography and Monopoly: The Form of Reports on US Newspaper Internet Sites', *Journalism Studies* 3(4): 477-489.

Bourdieu, P. (1971) '*Le Marché des Biens Symboliques*' (The Market of Symbolic Goods), *L'Année Sociologique* 22, 49-126.

Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge.

Bourdieu, P. (1986) 'The Forms of Capital', in Richardson, J. (ed.) *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood.

Bourdieu, P. (1988 [1984]) *Homo academicus*. Stanford: Stanford University Press.

Bourdieu, P. (1990) *Photography – A Middle-brow Art*. Stanford: Stanford University Press.

Bourdieu, P. (1991) *Language and Symbolic Power*. Cambridge: Polity Press.

Bourdieu P. & Wacquant, L.J.D. (1992) *An Invitation to Reflexive Sociology*. Chicago: Polity Press.

Bourdieu, P. (1993) *The Field of Cultural Production. Essays on Art and Literature*. Cambridge: Polity Press.

Bourdieu, P. (1995 [1979]) *Distinktionen – En sociologisk kritik af dømmekraften.* (Distinction – a social critique of the rules of judgement), Frederiksberg: Det lille Forlag.

Bourdieu, P. (1996a [1992]) *The Rules of Art. Genesis and Structure of the Literary Field*. Stanford: Stanford University Press.

Bourdieu, P. & Wacquant, L. J. D. (1996b) *Refleksiv sociologi* (Reflexive sociology). Copenhagen: Hans Reitzels.

Bourdieu, P. (1997) *Af praktiske grunde: Omkring teorien om menneskelig handlen* (For Practical Reasons: A Theory of Action). Copenhagen: Hans Reitzels.

Bourdieu, P. (1998 [1996]) *On Television*. New York: The New Free Press.

Bourdieu, P. (1998) *Om TV og journalistikkens magt* (On the power of television and Journalism). Copenhagen: Tiderne Skifter.

Bourdieu, P. (2005) 'The Political Field, the Social Science Field, and the Journalistic Field', in Benson, R. & Neveu, E. (eds.) *Bourdieu and the Journalistic Field*. Cambridge: Polity Press.

Cottle, S. (2003) 'Media Organisation and Production: Mapping the Field', in Cottle, S. (ed.) *Media Organization and Production*. London: Sage Publications.

Domingo, D. (2006) *Inventing Online Journalism: Development of the Internet as a News Medium in Four Catalan Newsrooms*. Ph.D. dissertation, Universitat Autònoma de Barcelona.

Engebretsen, M. (2006) Shallow and Static or Deep and Dynamic? Studying the State of Online Journalism in Scandinavia, *Nordicom Review*: 27(1): 3-16

Eriksen, L.B. & Ihlström, C. (2000) 'Evolution of the Web-genre: The Slow Move Beyond the Print Metaphor', in *Proceedings of the 33rd Hawaii International Conference on System Sciences*. Los Alamitos: IEEE

Falkenberg, V. (2009) *Netavisernes historie – avisevolution i mediematricens revolution* (The History of Online Newspapers). Ph.D. thesis, Århus University.

Gasher, M. & Gabriele, S. (2004) 'Increasing Circulation? A Comparative News-flow Study of the Montreal Gazette's Hard Copy and Online Editors', *Journalism Studies* 5(3): 311.

Hartley, J.M. (2009) 'Uden saks og klister…' (without scissors and glue…), in Lund, A.B., Willig, I. & Blach-Ørsten, M. (eds.) *Hvor kommer nyhederne fra*? (Where do news come from?), Ajour: Århus.

Hartley, J.M. (2011) *Radikalisering a kampzonen – en analyse af netjournalistisk praksis og selvforståelse i spændingsfeltet mellem idealer og publikum* (Radicalisation of the Battle Zone – An Analysis of Online Journalism Practice and Self-understanding in Between Ideals and Audiences). Ph.D. thesis, Roskilde University.

Hovden, J. (2008) *Profane and Sacred. A Study of the Norwegian Journalistic Field*. Ph.D. thesis, University of Bergen.

Kammer, A. (2013) *News on the Web: Instantaneity, Multimodality, Interactivity, and Hypertextuality on Danish News Websites*. Ph.D. thesis, Copenhagen University.

Lebaron, F. (2009) 'How Bourdieu "Quantified" Bourdieu: The Geometric Modelling of Data', in Sanders, C. & Robson, K. (eds.) *Quantifying Theory: Pierre Bourdieu*. Dordrecht: Springer.

Le Roux, B. & Rouanet, H. (2004) *Geometric Data Analysis from Correspondence Analysis to Structured Data Analysis*. Dordrecht: Kluwer.

Lindlof, T.R., & B.C. Taylor (2002) *Qualitative Communication Research Methods.* Thousand Oaks: Sage.

Lim, J. (2010) 'Convergence of Attention and Prominence Dimensions of Salience Among Major Online Newspapers', *Journal of Mediated Communication* 15: 293-313.

Marchetti, D. (2005) 'Subfields of Specialized Journalism', in Benson, N. & Neveu, E. (eds.) *Bourdieu and the Journalistic Field.* Cambridge: Polity Press.

Marchetti, D. (1997) *Contribution à une sociologie des transformations du champ journalistique dans les années 80 et 90 (A propos d''*événements *sida'et du'scandale du sang contaminé)* (Contribution to a Sociology of the Transformations of the Journalistic Field During the 80s and 90s). Doctoral thesis, Centre de Sociologie Européenne.

Martin, S.E. (1998) 'How News Gets From Print to its Online Counterpart', *Newspaper Research Journal* 9(2): 64-73.

Neuberger, C., Tonnemacher, J., Biebl, M. & Duck, A. (1997) 'Online – The Future of Newspapers? Germany's Dailies on the World Wide Web', *Journal of Computer-Mediated Communication* 4(1). Retrieved 1 July 2004 from http://www.ascusc.org/jcmc/vol4/issue1/neuberger.html

Quandt, T. (2008) 'News Tuning and Content Management: An Observation Study of Old and New Routines in German Online Newsrooms', in Paterson, C. & Domingo, D. (eds.) *Making Online News*. New York: Peter Lang.

Singer, J.B. (2001) 'The Metro Wide Web: Changes in the Newspaper's Gatekeeping Role Online', *J&MC Quarterly*, 778(1): 65-80.

Singer, J.B. (2004) 'Strange Bedfellows? The Diffusion of Convergence in Four News Organisations', *Journalism Studies* 5(1): 3-18.

Schultz, I. (2006) *Bag om nyhedskriterierne – en etnografisk feltanalyse af nyhedsværdier i journalistisk praksis* (Behind the Criteria of News – An Ethnographic Study of News Values in Journalistic Practice). Ph.D. thesis, Skriftserie for journalistik, Roskilde University.

Slaatta, T. (2003) *Den norske medieorden. Posisjoner og privilegier.* (The Norwegian media-order. Positions and privileges) Oslo: Gyldendal Akademisk.

Van der Wulf, R. & Lauf, E. (2005) *Print and Online Newspapers in Europe: A Comparative Content Analysis in 16 Countries*. Amsterdam: Het Spinhuis.

Wiik, J. (2010) *Journalism in Transition. The Professional Identity of Swedish Journalists*. Ph.D. thesis, Gothenburg University.