
RESEARCH ARTICLE

A Long-term View on the Business Model of Newspaper Publishing: International Comparison and Quantitative Modelling for Germany as Case in point

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Although consequences are still debated, financials in several countries indicate that the traditional newspaper publishers' business is not sustainable in the long term. To overcome speculation we built a quantitative model for newspapers' profit margins to derive ten-year scenarios in a systematic way. The simulation is based on a conceptualisation of a 'business model' that can be operationalized. It was designed and tested for specific newspapers in Germany, but is based on general assumptions and of international applicability.

Even with optimistic values for print-online substitution, online usage still on the rise, and mobile devices becoming widespread, additional digital revenues of newspapers' brands most likely cannot compensate for losses in print. In addition to exploiting editorial content across multiple platforms, publishers should explore options beyond these: developing 'dynamic capabilities' and possibly setting-up 'ambidextrous' organizations. (Unless, of course, they wait for subsidies to manifest or rely on an engagement of civil society for financing journalism.)

Keywords: Newspaper publishing; business model; digital transformation; simulation; newspaper crisis

Introduction

Although it is still debated whether the state of newspaper publishing can be called a crisis (cf. McChesney and Nichols 2010, Siles and Boczkowski 2012, Brüggemann et al. 2015, Schlesinger and Doyle 2015), research and empirical data respectively in several countries (Kuhn 2011, McChesney and Nichols 2011, Lehtisaari et al. 2012, Kolo and Weichert 2014), as well as on a general or international level (cf. Siles and Boczkowski 2012, Murschetz 2014, WAN-IFRA 2015), indicate that at least the traditional business model is not sustainable in the long term (see also Picard 2008, Kaye and Quinn 2010, McChesney and Pickard 2011, Picard 2011, Holm and Günzel and Ulhoi 2013).

For several hundred years, starting with the first newspaper, publishing was a very attractive and robust business. However, with audiences and advert sales decreasing its solid profit margins are challenged. Eventually, the advent of mobile devices like smart phones and tablets brought some hope for the newspaper business model to be saved. Today, as this seems increasingly unlikely, alternative models for financing journalism like press subsidies (cf. Murschetz 2014) or a 'third way' via engagement of the civil society are being discussed (cf. Littger and Weichert 2013).

Furthermore, newspaper publishing was not just an attractive business: by ensuring access to information and giving diverse opinions a platform for public discourse, it is also a cornerstone of democracy. In this respect, a potential newspaper crisis is not only a business issue, it affects our societies as well as our national economies. Hence, financing quality news journalism is a matter of utmost political concern. In this proposed contribution we will not elaborate on the role of newspaper publishing in a media system that is adequate for a democratic society, as this is done elsewhere (see for example Jones 2009, Knight Commission 2009, Levy and Rasmus 2010). However, its importance in the latter respect is one of the arguments why the fate of the newspaper business model is an urgent issue of academic as well as practical relevance.

In addition, although the future of newspaper publishing has been examined via more specific research on the experiences of publishers (e.g. Mitchelstein and Boczkowski 2009, Bressers 2009, Picard 2011, Casero-Ripollés and Izquierdo-Castillo 2013, Doyle 2013, Goyanes and Dürrenberg, 2014) and has been preceded by more general elaborations on the role of digital transformation for media industries (Chan-Olmsted and Chang 2003, Küng 2008, Küng and Picard and Towse 2008), the analysis is still far from being conclusive. Whilst some newspapers have in fact died and in most mature economies the whole newspaper industry sees only decreasing numbers in terms of audience, revenues and profit, other publishers grow stronger after seemingly overcoming the crisis. Another group of countries, particularly developing or newly industrialized ones, still exhibit a prospering newspaper industry in general (for an overview of market facts see WAN-IFRA 2015).

To overcome speculation on possible developments we pursue three goals with the project presented in this contribution. Firstly, we will set up a quantitative model on the basis of audience developments per age group for newspapers' profit margins to derive more or less optimistic scenarios in a systematic way. The model shall be framed to tackle the question: under what circumstances newspaper publishers can compensate the losses in print? Secondly, we will conduct an international analysis showing that the German newspaper publishing business is not exceptional. Finally, we will apply the model to the German situation and derive general conclusions for the business model of the newspaper.

Obviously, the current situation of newspaper publishing as well as its future prospects depend on a number of different, yet interacting, developments comprising among others demography, general interest for news, print-online substitution in media consumption as well as trends in advertising. Our model allows for alternative consistent assumptions and comprises a demographic model, an age-specific parametrization of trends in media use as well as of media split and CPTs (Costs per thousands) in advertising. Combined with a model for publishers' cost structures it allows also for a view on profit margins.

Initially, the model was developed to analyze strategic options for one predominantly regional as well as for one major national newspaper publisher in Germany. However, although the model can be applied to specific newspapers, it is based on general assumptions.

In the following, we will first summarise in section 2 (below) the situation of newspapers in Germany, qualitatively as well as quantitatively, and use it as a case in point to outline the diverse challenges the traditional business model is exposed to. By doing that, we will also

discuss a more formal conceptualisation of a 'business model' that can be operationalized. In section 3 this focus on the level of the publisher is followed by a perspective on the role of newspaper publishing in the German media system in an international comparison. This will provide the context needed to discuss the general applicability of the model that shall be outlined subsequently in the next section on scenarios of audience development in print as well as digital media and in section 5 on potential revenues and profit margins. Finally, in section 6 a discussion of framework conditions that realistically can be influenced and strategic options therein will shed light on whether the difficult situation of newspapers in many countries is temporary or constitutes a real crisis of the business model. We conclude with an outlook on possible futures.

The newspaper business model in times of digital transformation

The state of the newspaper business shall be outlined in the following on the basis of Germany as a case in point.

After a peak in 2000, newspaper publishers in Germany have experienced decreasing revenues ever since (see **Figure 1a**). The decline was fuelled by decreasing readership and a shifting media split in advertising particularly for classifieds (see also **Figure 2**) to the benefit of online services and at the expense of newspapers (Kolo 2010, 2012).

This decline in overall advertising revenues per reader however, could not be compensated by a continued rise in consumer spending per copy (see **Figure 1b**). The typical ratio of advertising to consumer spending until the first years of this century at $\frac{2}{3}$ to $\frac{1}{3}$, is now about to be reversed (see **Figure 1a**). With diminishing numbers of readers as well as copies and an increasing competition for advertising space with digital media, resulting in less revenue per reader (see **Figure 1b**), the only remaining parameter to drive up revenues with existing print products is the sales price. This was undertaken extensively as can be seen in **Figure 1b**. Raising copy prices however, risks further threatening paid circulation; particularly when it comes to younger potential readers.

Most badly hit were newspapers in Germany by almost entirely losing classified advertising to newly set-up online competitors (see **Figure 2**). After the economic boom in 2000 with a high demand on the labour market and hence a large number of job adverts, recruiting

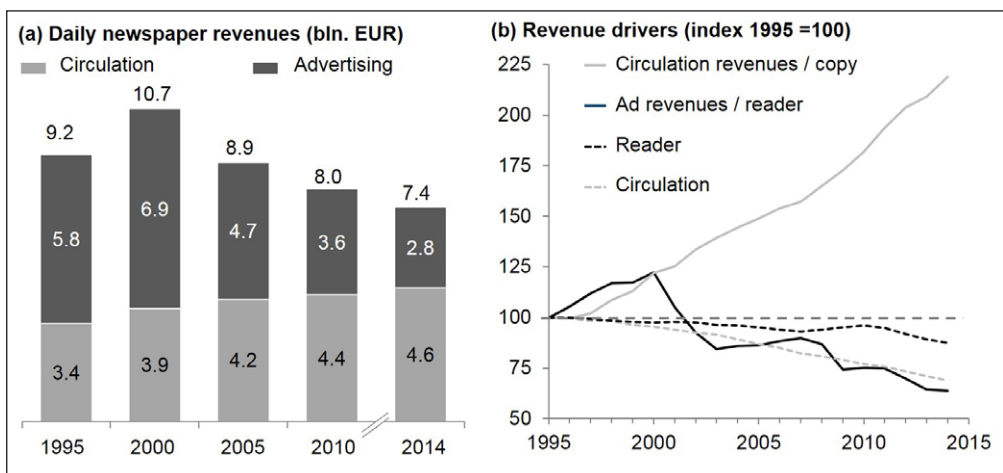


Figure 1: Revenues and revenue drivers of German daily newspapers. *Source:* Own calculations on the basis of raw data from BDZV (2015), IVW (2015).

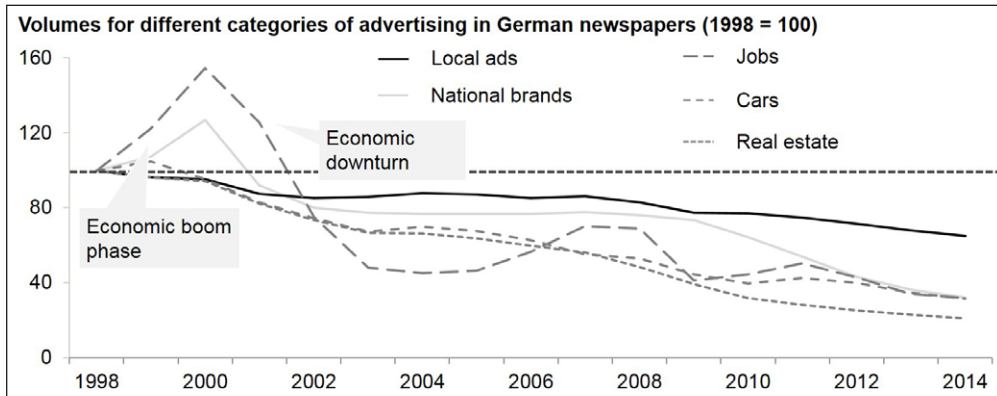


Figure 2: Development of advertising volumes (mm) for different categories. *Source:* Own calculations on the basis of raw data from ZMG (2015).

moved in very short time to online alternatives. A similar development, albeit not so dramatic, can be observed for cars and real estate.

Local adverts, e.g. from local retailers or services, as well as adverts from national (or international) brands were still relatively stable for some time. However, today supra-regional brands have also significantly moved away from newspapers with only local adverts (including supplements) remaining a somewhat reliable revenue source – but certainly not forever, as the trend indicates.

These developments show that the traditional business of newspaper publishers is not only challenged by a diminishing number of print readers. Other problematic aspects include (i) an extreme over-ageing of the audience (omitting to foster a brand image among the young and becoming less attractive for advertisers), (ii) losing the leverage of audience of sold copies of print to digital offerings (where it is rather 1:1 than 2.5:1 as in print), (iii) strongly reduced CPT values for 'eyeballs' in digital media (including tablet) versus print, (iv) unbundling of editorial content, services, market places etc. and competition with new players in each category losing revenues and profit margin, and finally (v) a high share of fixed costs with increasingly little room for manoeuvre (plus rising prices on the labour market).

In order to capture the manifold trends and interacting developments, we set out to visualise the essence of the traditional newspaper business to later also map it formally in a quantitative model that enables us to explore alternative futures. A common ontology to summarise 'stories that explain how enterprises work' (Magretta, 2002: 4) is that of a 'business model'. Although the concept of a business model dates back to the 1950s, (Osterwalder et al. 2005) it is far from a conclusive research area (see already Osterwalder et al. 2005) and for some scholars the concept of a business model still lacks theoretical grounding in economics or in business studies (cf. Teece 2010). However, in practice 'business models' have grown in significance in the last decade (Wirtz et al. 2015), in particular as they are associated with securing and expanding competitive advantage (see already Johnson et al., 2008). As structured management tools, business models are considered especially relevant for success (Magretta, 2002). A large portion of 765 managing directors who have taken part in a global IBM study share the view that financially successful companies attach around twice as much importance to consequential and sustainable business model management as financially less successful companies (IBM 2007). As there is a high significance attributed to the business model concept in practice, it is also increasingly tackled in a systematic way as a concept

in scientific research (see Wirtz et al. 2015 as one of the most recent overviews) and as a basis for innovation – particularly in times of digital transformation (Afuah 2014, Foss and Saebi 2015).

In one of the most recent comprehensive studies on the state of the concept, the authors come up with a possibly well balanced definition – although one difficult to be operationalized:

A business model is a simplified and aggregated representation of the relevant activities of a company. It describes how marketable information, products and/or services are generated by means of a company's value-added component. In addition to the architecture of value creation, strategic as well as customer and market components are taken into consideration, in order to achieve the superordinate goal of generating, or rather, securing the competitive advantage.' (Wirtz et al. 2015).

They add that '(to) fulfill this latter purpose, a current business model should always be critically regarded from a dynamic perspective, thus within the consciousness that there may be the need for business model evolution or business model innovation, due to internal or external changes over time' (Wirtz et al. 2015). Equally, the definition of a business model by Osterwalder and Pigneur (2010) is frequently used in practice-oriented management to challenge ways of doing things as well as emphasizing possible new approaches but is not well suited for deriving a quantitative model. Hence, with the lack of a recent concept or definition that can be directly operationalised, we focused on elements of business models already emphasised in earlier theoretical as well as practice-oriented work (cf. Wirtz 2011) and confirmed by more recent studies (Wirtz 2015). Most concepts highlight that among other components a business model at least consists (1) of a product with a certain value proposition, that is (2a) sold to specific market segments (customer) on the basis (2b) of a given revenue model and generated (3) by a certain architecture of operations (see **Figure 3** for a schematic view).

This is consistent with an operationalization taking into account revenues coupled to some variable costs, plus additional fixed costs and some framework conditions that guarantee the

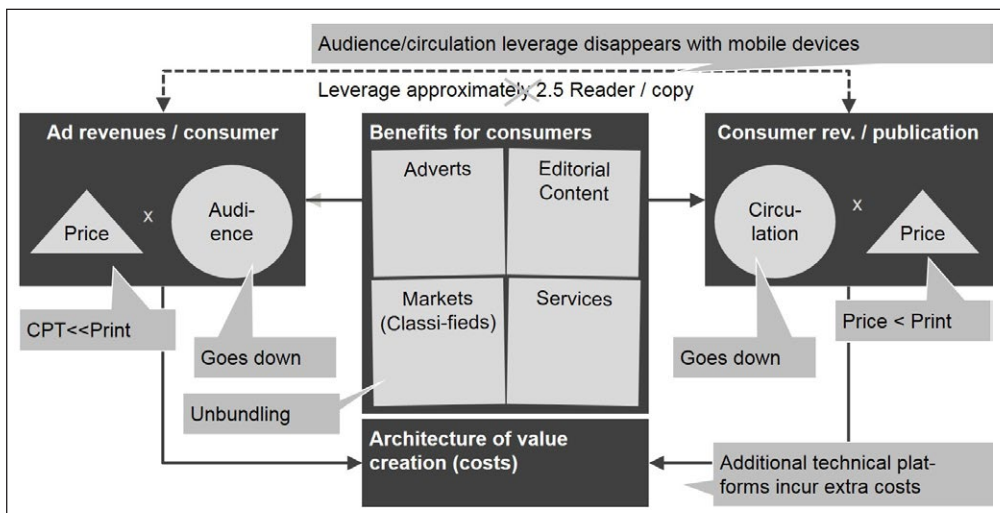


Figure 3: Schematic view on the traditional newspaper business model and its challenges.
Source: Own elaboration.

sustainability of such a business, i.e. that define a strategic advantage. At such a quantitative level, a business model consists of a revenue model, a cost model and the explicit (and implicit) assumptions concerning the context justifying the two models over the period considered. In **Figure 3** we outline the traditional newspaper business model and its challenges based on such a basic concept.

Newspaper publishing and readership in Germany and beyond

In order to argue for a general relevance of the modelling approach as well as its results discussed further below we shall have a look on whether Germany is in a peculiar situation given its media system, and level of economic development, as well as the general state of newspaper publishing and readership.

Germany as a mature economy also has a total volume of media industries' revenues at a relatively high level compared to overall economic value creation. **Figure 4a** outlines that for such mature economies, the potential for growth of media industries is limited compared to newly industrialized countries engaging in a catch-up race in terms of the ratio of media revenues to GDP and hence fast growing media industries (see also Kolo 2015). This is a matter of fact that puts pressure on growth in addition to changes driven by digital transformation.

In respect of the specific role of the newspaper industry within the whole media business (see **Figure 4b**), Germany is only slightly below average in terms of the ratio of the newspaper revenues to all media revenues and one percentage point above average in respect of the ratio of internet revenues to all media—the latter position being reduced also to a below average level when compared only to mature economies.

Not surprisingly, very much like for all mature economies coinciding with an advanced IT infrastructure and a large fraction of online users, Germany shares the fate of a correlation of internet usage with losses in print advertising (**Figure 5a**). However, within mature economies, Germany can still be called a 'newspaper country' in that newspapers up to now

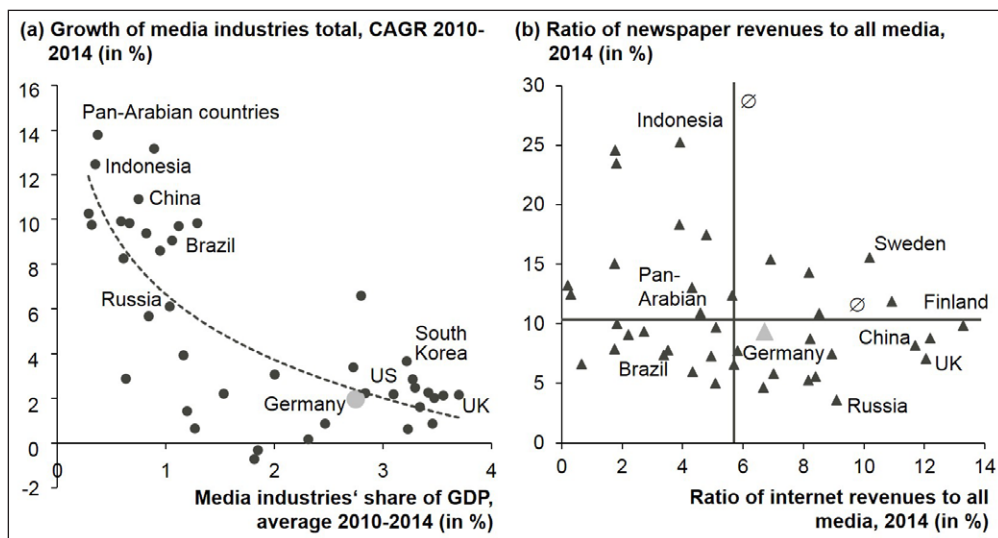


Figure 4: The role of newspaper industries in the overall media business of Germany in international comparison. *Source:* Own calculations on the basis of raw data from PWC (2015).

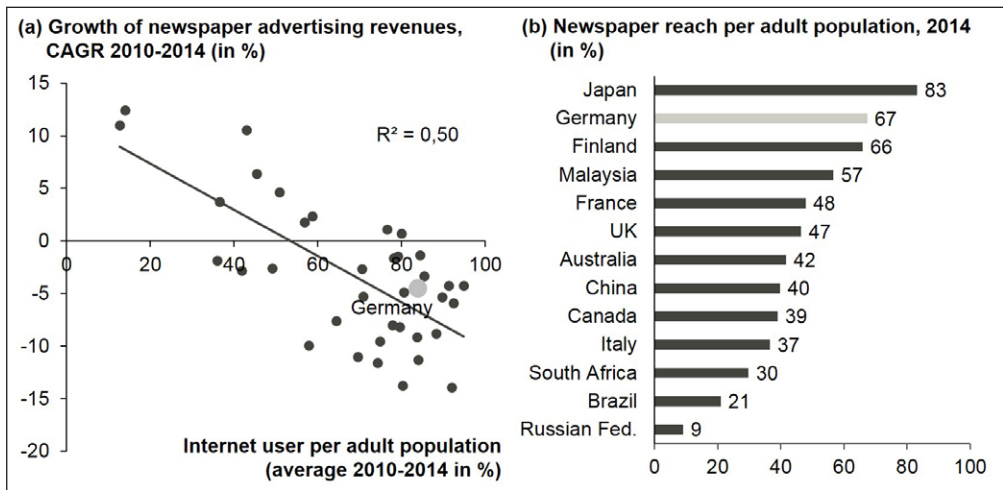


Figure 5: Impact of digital media on advertising and newspaper reach in Germany in international comparison. *Source:* Own calculations on the basis of raw data from WAN-IFRA (2015).

constitute an important element of media usage (see also WAN-IFRA 2012), with an overall coverage of 67 per cent of the population (**Figure 5b**).

Although television is by far the most important media for daily news (with public broadcasting having a significant market share; Zubayr and Gerhard 2012), newspapers come second, while online media are still only coming third (ACTA 2014). However, there are substantial trends within print and online in terms of daily audience reach, both leading in opposite directions: newspapers losing readers and internet substantially gaining users respectively. Although the newspaper business is important today, it is losing considerable ground to the internet in terms of revenues (PwC 2014).

Overall, regional subscription dailies make up for most of the German printed news supply market (Röper 2012) and are the focus of this paper. Free newspapers have never reached a level of relevance due to fierce competition by paid-for incumbents. Weeklies and Sunday newspapers shall not be considered here, as they experience a different competitive environment (cf. Kolo and Weichert 2014).

Today, it becomes quite evident that those who have not been reading a newspaper regularly at an early age will never start doing so (see also the historic developments of audiences of regional newspapers in **Figure 7** left). Following reader cohorts over the decades shows a steady decline in readership. The erosion of newspaper readership also shows up in less printed copies sold, albeit to a slightly lower degree as more and more readers share their copy (see **Figure 1b** above). However, not only are the losses of readers dramatic as they get older due to substitution of printed for online news offerings, but so also is the failure to attract young readers a major drag on any further development of the print media industry. This situation becomes even more evident when focusing in particular on intensive readership (Kolo and Meyer-Lucht 2007).

Scenarios based on audience development in print and digital media

The key component of the scenarios are models of audience development on all relevant platforms, i.e. print, online (the webpage related to the journalistic brand), smartphones, and tablets. However, instead of working with absolute values for the respective audiences

we used shares of the audiences in relation to the absolute values of the total population. By doing that, we automatically account for demographic developments and are able to differentiate different age groups; the latter being particularly important for studying the development and potential overlaps of cross-media audiences.

Hence, we started building our model with mapping demographic change as forecast (Statistisches Bundesamt 2014). **Figure 6a** shows the German population per age group as it develops over the next decade. Likewise for a simulation in another country, forecasted demography would have to be procured in absolute numbers. The audience share per age segment leads then to the absolute audiences. In most countries the latter is regularly measured for most media in general as well as for specific titles. Readers, for example, are computed by their share in each age group and alternative assumptions of their decline in the years to come – analogously the rise of onliners, smartphone and tablet users.

All following steps of the simulation of future developments are based on these numbers. From readers follow sold copies via a model of the number of readers sharing a copy. Based on these measures of audience (see, **Figure 6b**) revenues from recipients as well as from advertisers can be derived (see, **Figure 6c**).

But how are future developments of audience shares parametrized? In principle the simulation allows for any assumption. However, we decided as a starting point to simply extrapolate the trends of decreasing (print) or increasing (all other platforms) audience share from the previous to the next decade. For a sensitivity analysis (see below) these trend extrapolations were varied.

Figure 7b, right shows a model of print-online substitution as given by extrapolation of the declining percentages of newspaper readership per age group in the past (**Figure 7a**, left).

This set of percentages applied to the population matrix in absolute numbers leads to readers – here as readers of regional newspapers (**Figure 8a**). The percentages are based on the trend of measured values for the last decade (AWA 2014). Most likely this is an optimistic assumption as the decline is observed to accelerate in countries that are further ahead in

(a) Population per age group in 1,000 (demography)										(b) General dynamics of media usage			(c) Developments related to business model	
	14-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	≥ 80 years	Σ	General print-online substitution (readership)	Readers per sold copy		Market share	Copy price
2014	4,850	8,587	8,886	12,527	10,306	9,051	7,259	3,354	64,820					Adv. rev. per reader
2015	4,786	8,544	8,851	12,146	10,488	9,105	7,296	3,528	64,743					
2016	4,721	8,500	8,816	11,764	10,670	9,159	7,332	3,706	64,670					
2017	4,657	8,457	8,782	11,383	10,852	9,214	7,369	3,849	64,562	General development online usage	General growth of intensity of use (users/visits/ PI)		Specific growth of users/visits/ PI	Ratio paid/free
2018	4,593	8,413	8,747	11,002	11,034	9,268	7,406	3,975	64,437					Adv. rev. per user
2019	4,529	8,370	8,712	10,621	11,216	9,322	7,442	4,085	64,297					
Δ 14-19	-321	-217	-174	-1,906	910	271	183	731	-523	General development smart phone usage	Platform compatibility	(Paid) news consumption	Specific share of users	Price per download
2020	4,464	8,326	8,677	10,239	11,398	9,376	7,479	4,163	64,123					Adv. rev. per reader
2021	4,400	8,283	8,643	9,858	11,580	9,431	7,515	4,222	63,931					
2022	4,336	8,239	8,608	9,477	11,762	9,485	7,552	4,265	63,724					
2023	4,271	8,196	8,573	9,095	11,944	9,539	7,589	4,298	63,505	General development tablet usage	Platform compatibility	(Paid) news consumption	Specific share of users	Price per download
2024	4,207	8,152	8,538	8,714	12,126	9,593	7,625	4,310	63,267					Adv. rev. per reader
Δ 14-24	-643	-435	-348	-3,813	1,820	542	386	956	-1,553					

Figure 6: Key elements of the revenue model. *Source:* Own elaboration; demographic data based on Statistisches Bundesamt (2014).

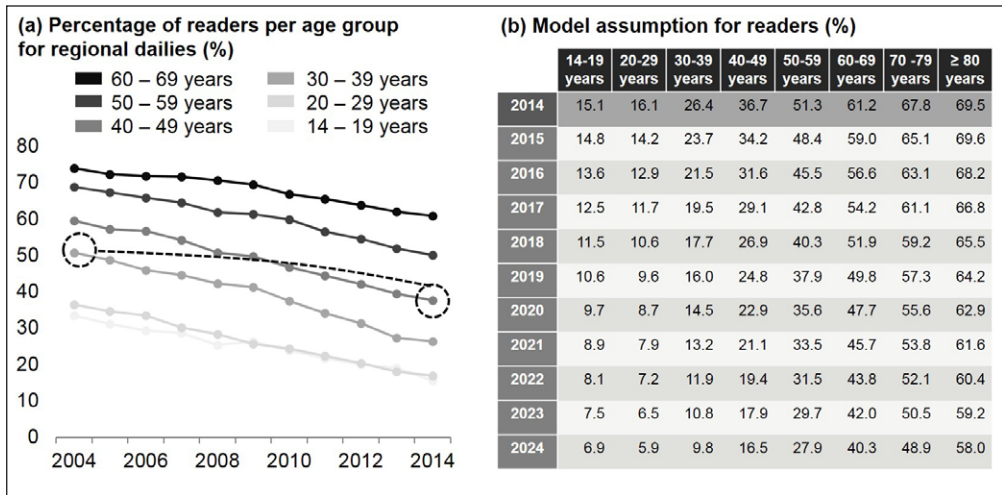


Figure 7: Analysis of past print-online substitution and model development for regional dailies. *Source:* Own elaboration based on historic data from AWA (2014).

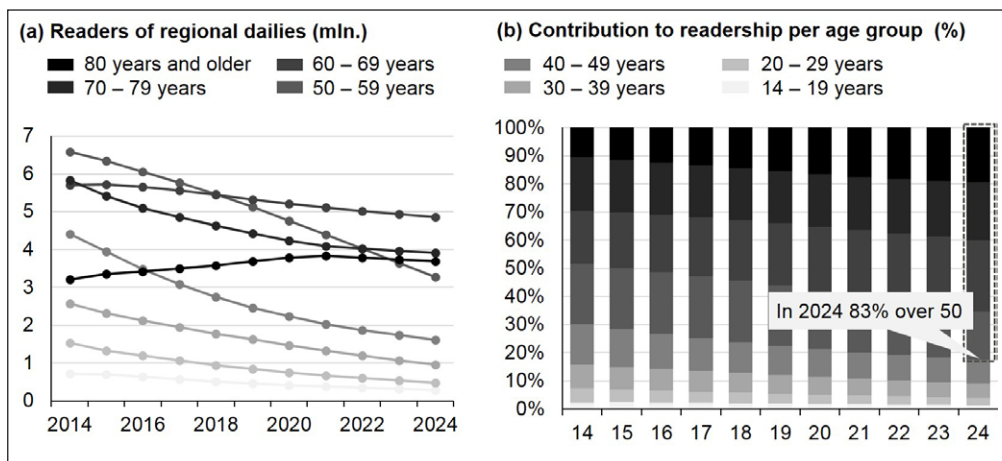


Figure 8: Modelling newspaper readership per age group as well as in absolute numbers for regional newspapers. *Source:* Own elaboration based on model assumptions.

online news consumption and substitution of print as in the US during the last years (see for example PEW 2011).

The numbers in **Figure 7** also emphasise the problem of losing young readers and brand awareness being increasingly narrowed down to the fifty plus population (see **Figure 8b**).

Depending on how refined the model is supposed to be, specific groups of readers could then be linked with specific segments in advertising or classifieds respectively (e.g. only readers below 50 years as the relevant audience for job adverts). Likewise, online audiences as well as smartphone and tablet users are modeled (see also table 1 in the appendix for an overview on the variables of the simulation model).

A similar approach is pursued for the growth of online media use. Based on previous developments, online usage, for example, can be extrapolated as shown in **Figure 9**. For smartphone usage the assumption was made that in ten years smartphone ownership is as widespread per age group as it is today for all mobile phones counted together. Tablets are assumed to be half as widespread per age group as online devices today combined. As all these developments are parametrised they can be varied according to different but still consistent model assumptions.

Along with the general readership of regional newspapers, the model may be applied to national newspaper readership (albeit with different substitution rates), and more specifically also to singular titles. Likewise, the model works also in other countries. All that are needed are a demographic model, observations of readership over the last decade (e.g. given by WAN-IFRA 2015) for modelling print revenues, and values for digital media usage for a complete cross-media model on the basis of which assumptions for the future can be made.

Figure 10a gives an example of the power of the model in simultaneously extrapolating usage on different platforms. This is essential for deriving advertising revenues from audience developments. It can be expected that ad revenues do not simply add up when users consume on more than one platform in parallel (see e.g. Taylor et al. 2013). Furthermore, subscription schemes depend on distribution of users per age group across different platforms (see the example in **Figure 10b** and **10c**).

A problem of German newspapers (but probably also for other countries of similar media structure) is the fact that important age groups for tablet offerings largely overlap with print usage. Hence, publishers risk (depending on the subscription model) exchanging valuable print subscribers for less valuable digital schemes.

Potential revenues and profit margins for traditional publishers

In parallel to the revenue model, a simulation of cost developments was set up to finally compute profit margins. The full model then allows us to generate scenarios with different but consistent assumptions. For all components of the model see also table 1 in the appendix.

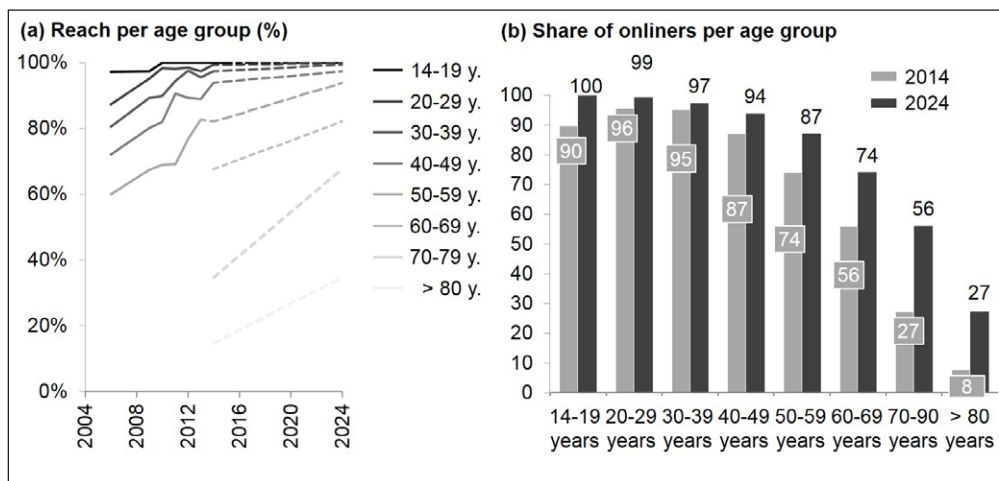


Figure 9: Modelling online usage on the basis of past developments. *Source:* Own elaboration based on model assumptions and measurements of online reach by AWA (2014).

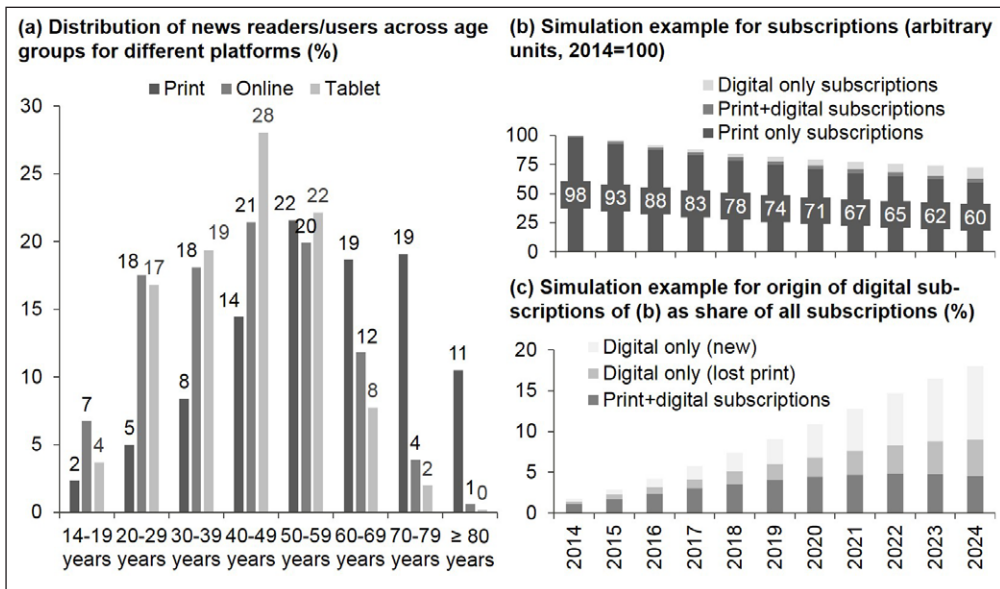


Figure 10: Comparison of news consumption on different platforms and model example for subscription schemes across platforms. *Source:* Own elaborations based on data from AWA (2014) and model assumptions.

An application of the model to different newspapers is very straightforward as only the starting values need to be changed in absolute terms. All future values are then computed on the basis of rates only.

Before applying the model to the situation of regional as well as national newspapers in Germany in general, it was tested with data for real newspapers in independent projects with three German publishing groups, comprising in total three regional daily newspapers as well as three national ones. Weeklies were not considered so far as they address different demands. Nor are free newspapers taken into account, as they play (so far) only a negligible role in Germany. In the following, we report only on the results for regional newspapers as they dominate the overall newspaper industry revenues as well as by circulation.

The model assumes that newspaper consumption is shrinking within two extreme ten-year scenarios: (1) The average rate of the last ten years continues and (2) the substitution rate progresses as observed in the last five years compared to the five years before. For the title specific simulations in addition two alternatives for market shares were considered: (1) Market shares per age group remain the same and (2) market shares stay the same within a cohort, i.e. are shifted from the younger to the group ten years older. With regards to digital media, an extrapolation of PC/laptop-based consumption is made between (1) a 10-year average and (2) a diminishing rate as observed in the last five years compared to the five ones before. News consumption is varied per title to account for remaining potential compared to benchmarks. Different models for paid content were compared (comparing total revenues from a pure advertising based model, via freemium to a rigid paywall model: trade-offs between advertising and paid content limit room for manoeuvre to at most ± 30 per cent revenues). CPT values were varied between ± 25 per cent of previous rates. Smartphone usage was not varied in wide ranges (as accounting only for small revenues) but set to a penetration in ten years compared to mobile phones in general today. Most potential new revenues based on editorial content could come from tablet usage. The current model varies two extreme

scenarios: (1) tablets are widespread as online usage today in general (i.e. all online user have a tablet in ten years) and (2) half of this penetration. CPT values were assumed (1) to rise to the mean between online and print and (2) to half of it. Most uncertain of the parameters was the modelling of the cross-media or multi-platform portfolio of an individual user/reader and therefore varied across a wide range (e.g. addressing the following questions: are tablet consumers willing to pay extra for print? Are new consumers attracted to the brand? Do advertisers pay a premium per channel?).

In **Figure 11** we present model results with the optimistic version. It becomes clear that even with moderate values for print online substitution, online usage still on the rise, and smartphone and tablets becoming widespread during the next decade, additional digital revenues cannot compensate for losses in print (for details see also **Figure 12a** and **b**). (although over the simulation period the share of digital revenues rises from 3 per cent today (as reported e.g. by PWC 2015) to 15 per cent in 2025).

In this model the way online content is handled has no substantial impact on the revenue situation. By charging for online content instead of giving access for free and reaching a higher audience in turn marketable to advertisers, additional digital revenues vary only in the order of ± 30 per cent when comparing the optimum to the least ideal share of paid content (by lifting a paywall gradually).

Finally, with a cost model profit margins can also be simulated on a ten-year horizon. Taking into account inflation (see **Figure 12c**) and reduced printing costs (less paper) respectively, a +10 per cent margin in 2014 will become a deficit of about -20 per cent in 2024 for the optimistic model – being far from a sustainable business model (see also **Figure 12d**). The latter statement holds true for a variety of assumptions on how digital versions of the newspaper are marketed (including a pay wall or freemium models as practiced in Germany and beyond).

The ratio of fixed and variable costs is taken as the average of actual values of newspaper publishers who applied the model to their specific context (see above). We expect these ratios to be a better basis for modelling as a more refined breakdown of publishers costs. As newspaper publishing and production is still heavily dominated by print operations (see also Doyle 2013) costs could go down in some part as a consequence of better exploitation of synergies, but also go up as an effect of more activities dedicated to particular platforms instead of an inadequate but still prevalent 'one content, different distribution channels' approach.

Overall, the model outlines that even in optimistic scenarios newspapers probably won't be viable without additional revenues beyond their brands' editorial content. However, for

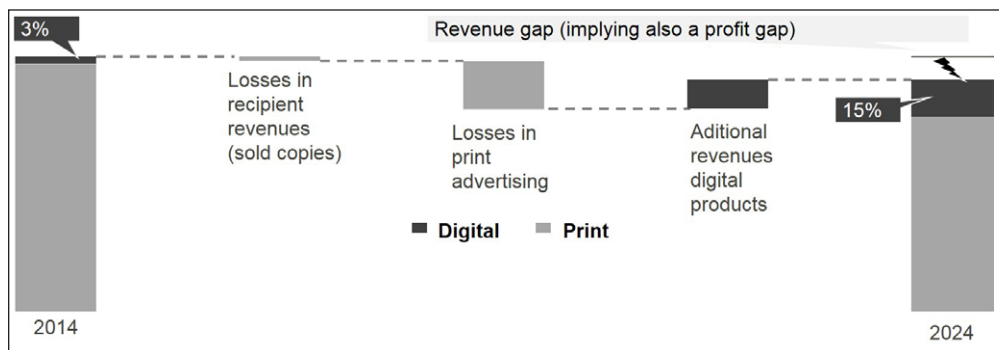


Figure 11: Exemplary revenues for a regional newspaper publisher (optimistic scenario). *Source:* Own elaboration based on model results.

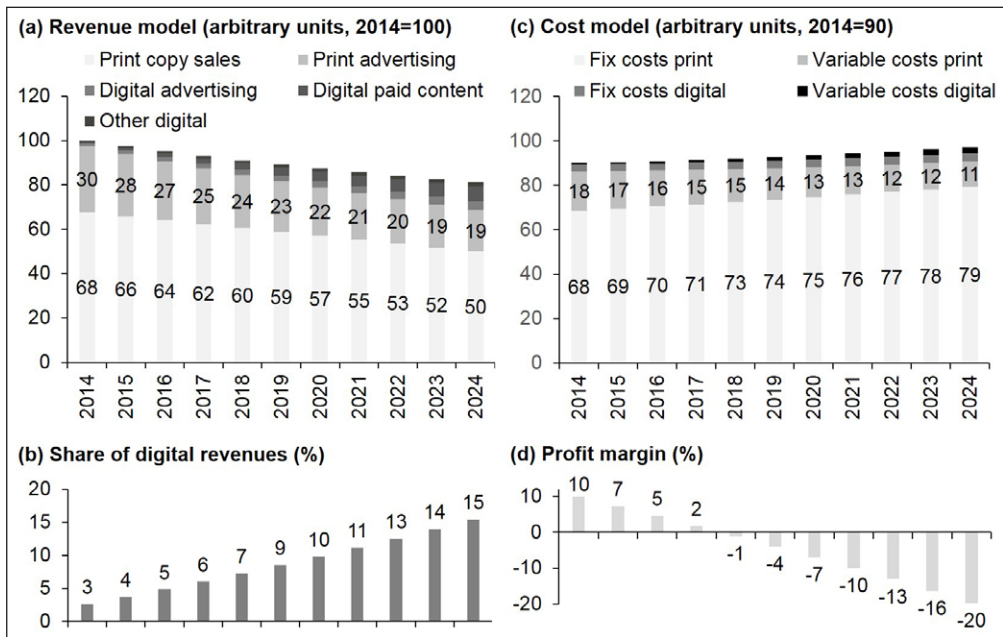


Figure 12: Exemplary revenue, costs, and profit development for an average regional newspaper. *Source:* Own elaboration based on model results.

the next five years they could still be profitable as they move from double digit margins. In the long term, diversification and substantial business model innovation is inevitable.

Conclusions and outlook on possible futures of newspaper publishing

With the project presented in this contribution we pursued three goals: setting up a model suited to study the diverse challenges of the newspaper business model by comparing alternative scenarios with an emphasis on audiences across platforms; then analysing the situation of German newspaper publishers in international comparison; and finally generalizing from the model results for Germany as a case in point.

The modelling approach allows to systematically analyse the net effect of very different developments, in particular the integration of demography and age specific media usage that cannot be anticipated by just regarding aggregated values. The model enables a comparison of extreme assumptions concerning print-online substitution and the pick-up of new end user devices respectively. On the basis of different consistent scenarios, the sensitivity to various factors affecting the profitability can be derived for individual newspaper titles as well as generically for a certain category of newspapers like regional dailies as elaborated in this contribution. For doing this, the model requires starting values for the dependent variables like circulation, revenues or costs and applies growth rates based on assumptions for future developments on them. In principle this modelling scheme based on a distinction of age groups is applicable also to other media. Tests with altogether six newspaper titles across three publishing groups and over a period of four years confirmed its potential. However, ultimately it is only a model with certain functional relationships that fails if the latter are prone to structural change. But as the model's focus should be the traditional business model of newspaper publishers and its extension to the production and distribution of editorial content and advertising to

digital platforms, it does not need to map substantial business model innovation. It proved well suited for answering the question whether digital media will compensate for losses in print over the next ten years.

The model results for Germany in particular also shed more light on the challenges of newspaper publishing in general. Germany is not an exceptional country with regard to the challenges of the newspaper business. It shares the fate of all mature economies, albeit with a certain time lag in print-online substitution compared to peers with a more encompassing internet penetration like the UK. On the other hand, a suffering newspaper business in Germany will also have relatively severe consequences on the level of the media industries in total, as Germany is a 'newspaper country' compared to other large and developed economies. Newspapers in developing or newly industrialised countries will still have some hope for growth as the market potential for print is not yet reached and substitution effects do not yet show up substantially for a relatively small internet usage base.

Hence we can generalise the model results and summarise: given the costs for a newspaper publisher, revenues generated by digital media offerings on the basis of the brand's editorial content print deficits most probably cannot be compensated. In the long term, the traditional publisher's business model is doomed.

With print readership shrinking, advertising moving to other online players, and the only modest success with the own digital products around traditional editorial content, one has to ask: what remains for newspaper publishers to do in order to stay in business?

There are several options of crisis management in the publishing industry (see also Brüggemann et al. 2012). In any event they will still have to work on their online operations and smartphone as well as tablet editions, i.e. mastering the 'cross-media' or 'multi-platform imperative'. Such strategies are spurred on by recognition or, in some cases, by hope amongst media managers that opportunities exist both to derive new revenues and to improve the management and cost-effective exploitation of media resources (see also Doyle 2010).

Most newspaper publishers are just realising that their current strategic manoeuvres are not sufficient. Apart from major publishers (i.e. Axel Springer, Hubert Burda Media) the medium-size and smaller publishing houses have extreme difficulties to uncover capabilities beyond their strengths of producing content and struggle with new ventures (usually entrusted to traditional newspaper people). However, in any case additional revenues have to be generated on the basis of new business in order to stay profitable.

Besides that, costs may be cut by exploiting synergies on a larger scale. Understandably, publishers increasingly strive for growth by mergers and acquisitions. However, cost cutting reaches its limits (as additional platforms rather cost extra – with only limited synergies) and that not much room to manoeuvre is left after years of cost cutting and streamlining. After all, substantial reductions may only be achieved by rethinking editorial processes. Even leading publishers are still struggling to achieve the integration of content production staff and digital specialists needed to promote innovation and, in turn, the development of effective new business models for the digital multi-platform era (Doyle 2013). Associated difficulties in doing so remain considerable (Doyle 2015).

These results relate to earlier work on the necessity, as well as the difficulties, of newspaper firms to generate new revenues in the digital environment and to perform successfully (Krumsvik 2012, Picard 2011, Tang et al. 2011), along with changes in newsroom practices and resulting cost structures (Achtenhagen and Raviola 2009, Deuze 2004, Domingo 2008, Spyridou et al. 2013), and resulting implications for innovation in the newspaper industry (Boczkowski and Ferris 2005, Mico and Masip and Domingo 2013).

In our opinion, an essential path to counter losses in the traditional business model is shown by larger German media companies (cf. Kolo and Weichert 2014). In addition to the

'cross-media imperative' (see, above), these incumbents follow a diversification strategy (the also required 'innovation imperative') into online services not based on editorial content, exploiting other assets typical for media companies. Among such assets for newspaper publishers are their roles in market making, in guiding purchase decisions, or in using online as well as print audience reach to scale up start-ups more rapidly than new pure online players. Most newspaper companies, however, do not yet embrace digital media in such an encompassing way and hence let go of potential revenues (see Christensen et al. 2012, on the lack of innovation among print publishers).

At the least most German publishers have ignored external developments for a long time, overestimating the sustainability of their strengths. Furthermore, they were too focused on the idea that 'content is king' and did not systematically explore other already existing but not yet discernible resources of strategic relevance. Today, to overcome the imminent crisis in an entrepreneurial way, publishers have to discover their 'dynamic capabilities' (for a general introduction to the concept see Teece and Pisano and Shuen 1997; for an application to media business see for example Oliver 2014), their ability to sense new opportunities, and how to seize them, and transform them into innovative processes and/or new offerings. There are plenty of assets or competencies respectively to tap. But companies aiming for an optimized exploitation of their existing business (here, the efficiency of newspaper publishing) and at the same time the exploration of new business beyond 'content' will most probably have to setup an 'ambidextrous organization' accompanied by adequate 'ambidextrous leadership' (for a general overview on these concepts see O'Reilly and Tushman 2013; for an application to the media business see for example van Kranenburg and Ziggers 2012). Whether this is easier to achieve for small publishers than for large media companies remains to be seen. The latter probably have an advantage triggering further concentration as a consequence.

Besides an entrepreneurial answer to the fate of the traditional business model, so far public financial subsidies have no support among the key players in Germany's printed news media. Rather, a 'third way' (with the entrepreneurial one first and subsidies second) of financing journalism is discussed in addition: the idea of providing journalistic services supported by new forms of public and civil society commitment (see for example Kolo and Weichert 2014).

At least on a regional level, newspaper publishers provide an essential information channel in Germany (like in other countries) and hence a necessary link to participate in the democratic process. Consequently, their offerings (not necessarily the incumbent publishers themselves) are essential for the functioning of Western democracies and the political system as a whole (Habermas 2007, Nielsen et al. 2013). Hence, more than a business model is at stake with newspapers not being in short-term turmoil but having already entered a persistent crisis.

Supplementary Files

The supplementary files for this article can be found as follows:

- **Supplementary File 1: Appendix.** <http://dx.doi.org/10.16997/wpcc.217.s1>

Competing Interests

The author declares that they have no competing interests.

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Castulus Kolo first studied physics at the Ludwig-Maximilians-University in Munich and completed with a PhD at the Particle Physics Laboratory CERN, Geneva. Later, he gained an additional PhD in social anthropology. Castulus Kolo gathered professional experience in consulting and applied research with an international management consultancy and the

German Fraunhofer Society – eventually as board member of its consulting spin-off. In 2001, he became member of the board of directors of the corporate venture of a major German publishing house, being responsible for business development. Throughout his management career Castulus Kolo continued academic activities as lecturer at several universities on innovation management, media and ICT. In 2007 he became professor and in 2008 chair of media management at Macromedia University of Applied Sciences, Munich, where from 2013 he has been Vice President for Academic Affairs. His research is published in international journals and is focused on the preconditions, the diffusion as well as the effects of (media) innovations at the intersection of economy, society and technology. Besides his academic activities Castulus Kolo still works as a business consultant and is founder of the foresight institute Future Directions.

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