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From everyday communicative figurations to rigorous audience news repertoires

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Abstract

In the last couple of decades there has been an unprecedented explosion of news media platforms and formats, as a succession of digital and social media have joined the ranks of legacy media. We live in a 'hybrid media system' (Chadwick, 2013), in which people build their cross-media news repertoires from the ensemble of old and new media available. This article presents an innovative mixed-method approach with considerable explanatory power to the exploration of patterns of news media consumption. This approach tailors Q methodology in the direction of a qualitative study of news consumption, in which a card sorting exercise serves to translate the participants' news media preferences into a form that enables the researcher to undertake a rigorous factor-analytical construction of their news consumption repertoires. This interpretive, factor-analytical procedure, which results in the building of six audience news repertoires in Denmark, also preserves the qualitative thickness of the participants' verbal accounts of the communicative figurations of their day-in-the-life with the news media.

Introduction

In the last couple of decades there has been an unprecedented explosion of news media platforms and formats, as a succession of digital, social, and more participatory media have joined the ranks of legacy media. We live in a 'hybrid media system' (Chadwick, 2013), in which people build their cross-media news repertoires from the ensemble of old and new media. Citizens' engagement in everyday life with the democratic affordances offered by this hybrid media ensemble is crucial for building public connection to democratic agendas (Couldry et al.; 2007, Jones, 2006; Dahlgren, 2006).

Interestingly the vast majority of research available to enlighten us about these matters has a statistical orientation (Hermida et al., 2012; Papathanassopoulos et al., 2013; Wolf & Schnauber, 2014; Helles et al., 2015; Newman et al. 2015). Some researchers even insist that we get the best insights from 'hard evidence': "In an age of great abundance, when people can access most things with the click of a mouse or a remote control, people's self-reports of their behaviors are especially prone to error. So whenever possible, the audience formations I describe are based on meters or server-generated data" (Webster, 2014, p. 97).

However, if we cut ourselves off from self-report methods, qualitative or quantitative, we will miss kinds of insight that may complement, and perhaps question, the knowledge that meters and logs make possible: For instance, as Webster acknowledges, the behavioral findings "don't tell us the purpose behind those links, whether readers follow them or how people make sense of the material encounter" (Webster, 2014, p.110).

The study reported in this article is precisely oriented towards exploring qualitatively *how people make sense of "the media manifold"* (Couldry, 2012, p. 44) as part of the "communicative figurations" which they inhabit (Hepp, 2013). We ask: what are people's verbalized reasons for regularly or irregularly using a particular set of news media, and how do they make sense of what these news media have to offer in the realms of consumption, politics, and culture? In its pursuit of audience cross-media news repertoires our study thus follows in the footsteps of the fairly limited previous research which has relied solely on qualitative methods (Meijer & Kormelink, 2014), or on mixed method designs that have prominently included qualitative tools (Heikkälä & Ahva, 2014) to illuminate people's selection and use of news sources. Our focus is on better understanding people's own verbalized experiences of the "communicative figurations" they inhabit, which are a constitutive part of our media-saturated "cultures of mediatization" (Couldry & Hepp, 2013).

Our study is thus offered as a complementary perspective to both news consumption research based on behavioral data (e.g. Hille & Bakker, 2013; Bro & Wallgreen, 2014; Webster, 2014), as well as to research relying on people's responses to questionnaire-based surveys (e.g. Hermida et al., 2012; Wolf & Schnauber, 2014). The latter type of research has recently witnessed a number of studies which compare news preferences across different national cultures, often in a cross-media perspective (Newman et al., 2015; Nielsen & Schrøder, 2014; Nossek et al., 2015), and sometimes resulting in a mapping of people's (news) media repertoires (Papathanassopoulos et al., 2013; Helles et al., 2015).

The study reported here is also part of such an international research consortium, with participants from 12 countries, which builds insights about citizen-consumers' navigation in the news landscape and its democratic implications. The complete study will compare how people in the twelve countries build cross-media news repertoires and how these repertoires are related to practices of democratic engagement and participation.¹ The common methodological approach applies an innovative qualitative methodology with a built-in factor-analytical generalization tool for building news repertoires. This article has a dual methodological and empirical focus: On the one hand we introduce an innovative method, which is applicable in many areas of media and audience research (see for instance Davis & Michelle 2011). On the other hand we demonstrate how this method can bring new insights to the empirical study of cross-media use, with particular reference to repertoires of news consumption. While these two aims are organically intertwined, we shall devote a special attention to the presentation of the methodological foundation of our variety of Q methodology, in the interest of methodological transparency of a non-mainstream approach to audience research.

Towards qualitative insights into news repertoires

The core of our research design consists of a qualitative methodology integrated with a reliable quantitative generalization procedure, which is indebted to Q Methodology (Stephenson, 1953; Brown, 1993; Rogers, 1995; Schrøder et al., 2003; Davis & Michelle, 2011), but which tailors this method considerably into a genuinely integrated mixed-method design, building on inspirations from well-known tools from the qualitative and quantitative tool-boxes (Schrøder, 2012).

The fundamentally qualitative design first applies the individual depth interview, in the form of an informal conversation during which the participant is invited to offer a narrative of a-day-in-the-life-with-the-news media, typically the previous day, in order to anchor the news media narrative situationally and contextually in the communicative figurations of the participant's everyday life. To adopt this exploratory strategy in our conversations with the participants is a deliberate attempt to approximate² – although in a non-ethnographic manner – our research design to the non-media-centric approach to media studies (Morley, 2009), which aims to “understand better the ways in which media processes and everyday life are interwoven with each other” (Krajina et al., 2014, p. 683).

We therefore start with the participants' accounts of their practices of everyday life, which we see as being played out in a number of intersecting “communicative figurations”, which people traverse in the course of a day, week, month or year, each characterized by a specific constellation of actors, a thematic framing, a set of mediated and non-mediated forms of communication, and a media ensemble (Hepp, 2013, p. 623f). Communicative figurations are constitutive of scalable social worlds, ranging from small social units like the family, through peer groups and societal institutions like the school or a workplace,

to macro-level frameworks like a national public sphere. In our conversations with people we explore how the particular situated communicative figurations which they inhabit lead them to use a particular cross-media constellation of news platforms and formats.

After four pilot interviews, we therefore in informal settings conducted 36 individual interviews whose participants were recruited to represent a high degree of diversity in terms of key demographic characteristics (gender; age groups 18-34, 35-54; 55+; three levels of education; three types of geographical location: capital, large city, provincial city).

At the end of this life-world-anchored narrative/conversation the participant was asked to carry out a card-sorting exercise, conversationally facilitated by the interviewer, during which they placed 36 numbered cards, each featuring one news media platform or format, on a pyramidal grid, according to how these news media play, or do not play, a greater or smaller role in their daily life. During this stage the participants were asked to accompany their activity with a think-aloud discourse about the reasoning underlying the card placements.



Figure 1. One participant's completed card sort

This decision about where to place a card on the grid takes place as a self-negotiated bottom-up judgment on the part of the participant, routinely applying a kind of inner 'algorithm', which subjectively weighs a number of factors which aggregate to the participant's

sense of the greater or smaller 'role played' by each of the 36 news media (such as frequency of use of each news media, time routinely spent, sense of indispensability, fit with everyday situations and locations, etc.). We see their use or non-use of a given news medium as a function of what we have elsewhere called the individual's perception of the medium's worthwhileness for their daily pursuits and identity (see Schrøder & Kobbernagel, 2010). The numerical values of the columns (see Figure 1) rise from the middle 'zero column' to +4 at the right (plays an important part) and -4 at the left (does not play an important part).

This card sort, which represents each participant's self-analyzed relational news media universe, enables the researcher to subsequently apply a quantitative design element: a factor analysis, which rigorously compares, in a process which combines statistics and cultural interpretation (see next section), the similarities and differences between the 36 participants' configurations of news media as displayed on the grid, ending up with a set of factors, which constitutes a typology of repertoires of news consumption. The typology is not representative of the national news audience, but according to the logic of Q methodology, the typology – given that it is based on a carefully theoretically founded sample and incorporates sufficient demographic diversity – can claim overall typicality of its findings.

In our view, it is inconceivable that a purely qualitative process of analytical generalization of the interviews could have resulted in a similarly rigorous, calculated set of repertoires (Schrøder, 2012). The card sort constitutes the participant's heuristic translation of experiential knowledge about his or her everyday news consumption into a statistically calculable form that overcomes the inherent opaqueness of qualitative interpretation. We describe the outcome of this factor-analytical process as a 'fortified qualitative analysis'.

As mentioned above, during the card sort participants were encouraged to 'think aloud', thus creating verbal data in accordance with another well-known qualitative method. Finally, at the end of each interview the participant was asked to fill out a short questionnaire with questions about their political engagement and participation.

For methodological overview, we here show the multiple mixed nature of our complete fieldwork design:

- *Qualitative inspirations:*
 - Depth-interview: A day in the life with the news media
 - Think-aloud when doing card puzzle game
- *Quantitative inspirations:*
 - Q-sorts (factor analysis) finds typologies in small samples
 - Short questionnaire: explores participants' political engagement/participation (not further analysed in this article)

Our qualitative knowledge interest in exploring news media preferences can be summarized in the following points.³

- How do people make sense of their news media preferences?
- How are people's choices from the 'media manifold' interrelated?

- How can cross-media news repertoires be discovered with a qualitative approach?
- How is news use a contextualized part of daily life?

An important consideration for putting together the common set of news media for participants to sort was the fact that the media systems in the 12 countries are moderately different: although many news media trends are clearly transnational or global, both the technological devices and the news formats become 'territorialized' differently across the countries. Consequently the participating researchers had to negotiate in order for the common set of news media to have maximum fit across media systems. See Appendix 1 for the complete set of news categories used.

The issue of 'non-existing' (at most two in any country) and 'unknown' news media types was handled by instructing participants to place such cards in the neutral middle column on the grid, which numerically counts as zero, and means 'no significance' to the sorter.

No method is perfect. Unavoidably, therefore, the methodological design has a number of other limitations. First, our sample does not include people who are non-users of news, the so-called "news-avoiders" (Shehata et al., 2015; Rouw & Hermans, 2015). Secondly, not every participant can be assumed to have a news repertoire with all the 36 news media playing some role; this means that for some participants the positions and relations of the cards placed at the left end of the grid are not based on strong commitment. Conversely, some participants may find that the two columns at the extreme right-hand side of the grid imposes an order on their five most cherished news media which does not do full justice to their subjective ascription of possibly equal importance to these media; however, it was our impression when conducting the fieldwork that participants on the whole found the card sorting to be an entertaining puzzle whose terms they readily accepted. Finally, our findings provide insights about people's news media preferences primarily at the selection and exposure stage of news consumption, but tells us less about how people relate to the news discourses they encounter in the news sources chosen; to some extent, however, the meanings taken from the news are revealed in the narrative part of the research encounter.

On the whole, therefore, we believe that the advantages of our mixed-method toolbox in enabling a rigorous qualitative sense-making approach to the mapping of news media preferences outweigh these limitations. In the fashion of grounded theory our innovative approach produces an analytically generalized portrait of audience news repertoires.

Generating audience news media repertoires: How Q factor analysis is performed

In order to better understand the mechanisms and inferences made in Q methodological factor analysis we here explain the background for the method. A factor is a statistical concept, and conventionally at the end of the analysis a set of factors, which is referred to

as a factor solution, is decided upon for further interpretation. The factor solution works as a template for interpreting the common intersubjective ways participants have sorted the cards and subsequently informs the analysis of news media repertoires. A factor solution, thus, provides an explanatory framework that aids the analysis of repertoires among the participants (Schröder, 2012).

In Q factor analysis, first, correlations between participants' Q sorts are calculated based on differences between each participant's placement of cards. These correlation coefficients are measures of similarity of news source preferences, and subsequently factor analysis of the correlation matrix serves "to break down a correlation coefficient into its component parts" (Brown, 1980, p. 223). In Q studies, the framework of inference comes from the two sampling strategies. The first one is a content domain sampling strategy of the entire universe of news sources, in Q methodology referred to as 'concourse' (Stephenson, 1986). From all news sources available a Q sample is generated to be representative of the universe of sources and thus serves as the basis of inference about news repertoires (see Appendix 1). The second sampling strategy has to do with the selection of persons, e.g. the P-set, which is done theoretically maximizing the diversity of participants with respect to the research question (Brown, 1980, p. 192). In the news study the selection of equal representation of categories of gender, age, education and residence reflects the theoretical idea of news consumption diversity across these attributes (Webster, 2014, pp. 43-47).

It is crucial to understand that it is by the logic of the Q sample representing the news media source universe that the generalizing statistical inference works across the data (Brown & Good, 2010). This means that generalization regards inference *about* meaning in this universe, and not inference of an average measure of preference structure *from* a sample to a population of people (Baas & Thomas, 1993, p. 22). Because the interest is in participants' meaning making they are handed the entire Q sample during Q sorting, and thus the generalization is not threatened on internal validity as in conventional measurement where respondents decode and respond to each item separately (Brown, 1980, p. 191). Moreover, reliability is, in comparison with other qualitative methods, high and easily testable with the Q sorting process as the central element to meet the threat of opacity noted above. But purists of the qualitative and quantitative camps often misunderstand the logic of the generalization. The qualitative purist typically tends to be critical about the use of correlation coefficients as a similarity measure of preferences (Borsboom, 2005), and is not convinced that the factor solution is generalizable, and finds that the analysis lacks transparency in procedures that hide behind the 'objectiveness' of statistics (Brown, 1980, p. 236). The quantitative purist is typically critical about the small sample size in Q methodology, asking how any variable can be examined for distributional characteristics with as few as for instance 20 cases (Brown, Danielson, & van Exel, 2014; Kampen & Tamás, 2014; Thompson et al., 2013)?

The answer to these critical points is, first, that correlations between Q sorts are in fact distance measures, and both these and the number of correlations (loadings) in the

produced factor solutions are interpreted relationally, e.g. a Q sort correlates to various degrees with each factor (Brown, 1993, p. 106; 110-111). See table 1. Secondly, interpretation is involved in different ways in all steps in Q analysis; the criteria and threshold values used in Q analysis are not objective rules to obey, but serve as interpretive guidelines. Given that the analytical objective is participants' meaning making, the approach to statistical operations is not that of providing one objective solution, but several, from which one is chosen through interpretations of a range of solutions, as Stephenson, the inventor, notes: "It is difficult to accept one kind of geometrical substructure as, in principle, the only basis for inferences" (Stephenson, 1953, p. 41). This point about factor solutions and the interpretive imperative was also one focus of Brown et al.'s (2014) response to a recent critique of Q methodology:

"Kampen and Tamás seem enamored with the idea that there is a fixed number of discrete viewpoints existing "out there", with the goal of Q being to identify them all (as if we were chemists aiming to fill in a periodic table). In actual practice, the goal is to help us navigate the complex field of the concourse by highlighting some of the important themes in it. It is also for this reason that Q relies on factor analysis, which allows each individual to load to some degree on multiple factors, rather than cluster analysis, which would assign each individual completely and uniquely to one group" (Brown et al, 2014, p. 531).

Thirdly, there is no reason to use large person samples, because a well selected sample is adequate to identify the relevant factors (Danielson, 2009; p. 222), as the interest is to explore what it is people share and not how many share particular views the same way (Stenner & Watts, 2012; p. 72). As far as we know there are no studies examining the stability of a factor solution in studies of news source preferences, but studies in other areas show that only very small deviations of factors are likely if other persons are recruited within the same theoretical sampling logic (Fairweather, 1981).

Factor analysis of participants' Q sorts

In our study the Q sample consisted of 36 news media and the P set included 36 participants, so that we ended up with 36 Q sorts. First the data matrix is transposed, which means turning the rows, which contain participants' Q sorts into columns so that a correlation between Q sorts, and not the news media sources, is calculated. We chose SPSS software, which is familiar to most and therefore suitable for comparison across the twelve national studies, although the features and functions are more limited than in the specialized PQmethod (Schmolck, 2014) and PCQ (Stricklin & Almeida, 2004). The standard procedure of principal component analysis (PCA) and varimax rotation was used in all analyses in combination with a set of criteria for assessing the explanatory power of the factor solutions produced. These criteria integrate the properties of statistical operations aiming at maximizing total explained variance of the data and producing a versatile clear pattern of correlations among factors and Q sorts. The process involves interpretations of the solu-

tions' capacity to reveal patterns in a clear manner (Davis & Michelle, 2011; Schröder, 2012, p. 810).

The criteria support the aim of a small number of factors with at least three and preferably more Q sorts significantly loading on a factor, while at the same time avoiding cross-loading Q sorts. A cross-loading means that a participant's Q sort correlates significantly with more than one factor, which empirically is justified by the fact that participants may have similarities with many others, but in order to analyze common repertoires this more complex aspect of news source engagement is not explored here. Likewise a factor solution with few significantly loading Q sorts and at the same time negative correlations is avoided, because negative correlations mean that the way this participant views news media sources is opposite the pattern of the factor, which may complicate the analysis.⁴ Level of significance is determined by calculating the standard error $\sigma = 1/\sqrt{N}$, where N is 36 (the number of news media cards) and deciding for the theoretically acceptable level of safe decision-making at three standard errors (2.58), which equals 1% chance of the correlations to be found by chance. This means that if a Q sort correlates higher than $r = .43$ or lower than $r = -.43$, the Q sort is considered significant (Brown & Good, 2010, p. 1152).⁵

Using these criteria five runs of factor analysis were performed. In the first analysis the criterion of eigenvalue above 1 was used, and the analysis came out with an explained total amount of variance of 81% and 10 factors extracted. However, this solution had cross-loading Q sorts in five factors, negative loadings in three factors and there were two factors with only one non-cross-loading Q sort. See Appendix 2. Because these factors would be difficult to interpret in terms of shared patterns of news media source preferences, the solution was discarded.

By running both a 9F-, 8F-, 7F- and 6F-solutions with a fixed number of factors extracted in each run, we aimed at comparing the solutions in terms of the criteria noted above. We consider this procedure legitimate because we argue for an open approach of interpreting alternative factor solutions, and because PCA only works to summarize variables and thus focus on total variance, not maximizing common variance of variables (Henson & Roberts, 2006, p. 398; Park, Dailey, & Lemus, 2002, p. 563). Among the solutions the 6-factor-solution was satisfactory, as it contained a small number of well-defined factors, with few cross-loaders and negative loaders, and still explaining a high proportion of the variance. Only one participant's Q sort, P20, was not included in this solution. This participant's Q sort correlated in the excess of .20 to .35 with five factors, and thus is a special case with a mixed view and use of news sources. See Appendix 2.

By choosing the 6-factor-solution a clear ground for subsequent analyses of repertoires was provided (see Table 1).

Q sort	Factor 1	2	3	4	5	6
P35	.814	-.077	.143	-.049	.142	.154
P27	.812	.204	-.070	.101	.220	.035
P01	.784	.173	-.031	.180	.187	.048
P34	.740	-.078	.132	.158	.162	-.137
P18	.703	-.093	.224	.233	.340	.116
P06	.652	-.245	.373	.122	-.060	.190
P33	.603	.322	.072	-.038	-.174	-.070
P36	-.530	.308	.321	.042	.103	.518
P02	.091	.771	.024	.074	.173	-.201
P19	-.074	.733	.024	.074	.173	-.201
P11	.268	.732	.048	.195	.215	.284
P15	.067	.684	.153	.017	.127	.165
P12	-.320	.666	-.002	.317	.089	.332
P23	.182	.453	.181	.207	.108	.137
P26	.190	-.102	.747	.061	.262	.131
P22	-.181	.315	.738	.093	.012	.233
P05	.203	-.05	.679	.114	-.083	-.418
P07	.267	-.137	.607	.378	.065	.200
P14	.180	.273	.601	.148	.034	-.280
P31	.065	.386	.600	.174	.242	-.141
P13	-.125	.174	.573	.384	.242	.152
P16	.282	.135	.052	.744	.333	.057
P28	.111	.015	.323	.725	.059	.006
P25	.075	.246	.314	.645	.153	-.034
P29	-.104	.429	.115	.559	.087	.305
P09	.394	.224	.086	.514	-.067	.195
P24	.259	.002	.151	-.107	.757	.018
P21	-.021	.277	.389	.037	.710	.117
P10	.465	.314	-.056	.243	.692	-.137
P30	.108	.210	-.021	.353	.664	.025
P32	.050	.412	.357	.306	.584	.104
P04	.176	.013	-.132	-.057	.075	.846
P03	-.094	.218	.122	.336	-.006	.706
P08	.212	.279	-.018	.427	-.110	.537
P17	.086	.466	.504	-.137	.103	.512
P20	.286	.080	.392	.213	.336	.291

Table 1. Q-sort factor loadings

As the correlations suggest, the negative cross-loader P36 in Factor 1 is also loading high on Factor 6, and is therefore included in the latter, but singled out for special consideration in the further analysis. Similarly, participants P10 and P17 appear to occupy a mixed position in terms of the way news media play a role in their daily life, and this is taken note of in subsequent analyses.

The next step is to address the content of each factor, e.g. scrutinizing the meaning of the pattern of news media scores in each factor. Below we illustrate the analysis with Factor 3.

From factors to repertoires: interpreting the factor scores

The 6 factors described above each comes with a set of factor scores, i.e. a ranked list of the news media that shows which of the 36 news media play important vs. less important roles in the lives of the participants who represent the repertoire (see Appendix 3). The factor analysis also shows which subset of the 36 participants share the news repertoire in question.

As an example, here is the top-10 news media shared by Factor 3, i.e. the news media cards placed in the three rightmost columns on the grid (see Figure 1 above):

1. Tabloids online news
2. 24-hour TV news
3. National public service TV news
4. News from Facebook
5. Text-TV
6. TV current affairs (light)
7. Tabloid print newspaper
8. National quality newspaper online
9. TV current affairs (serious)
10. Free daily newspaper online

As seen in Table 1, this factor has the Q sorts of participants number 5, 7, 13, 14, 22, 26 and 31 loading on it.

A news user's personal repertoire originates in a number of **orientations**, which, in different combinations, can be traced to his or her ranking of the 36 news media. Obviously the most important orientation is to the informative or entertaining content, which the user encounters in his or her preferred news media. This orientation is not overt in the ranked lists that represent the factors, so therefore we have to first base the analysis of the factors/repertoires on the orientations that can be read off from the lists; among these orientations we have relied on the following for drawing a first analytical portrait of the news consumption visible in the repertoires:

- Technological orientations (which technological platforms are used)
- General content categories (overview vs. depth, light vs. serious)
- Geographic orientation (local/regional, national, international)
- Information vs. entertainment (quality news brand, public service vs. tabloid brands)
- Lean-back (receptive use) vs. lean-forward (interactive use) (Picone, 2007)

In light of these dimensions we went on to analyze the salient news preferences of the six factors/news repertoires noting the following features in each repertoire:

- news media occurring in the repertoire's Top 5
- highest-ranked print newspaper
- national public service TV, or 24-hour TV news
- the rank of Text-TV news
- highest-ranked radio news
- highest-ranked newspaper online
- highest-ranked public service broadcaster (PSB) online
- highest-ranked social media (Facebook or Twitter)
- the rank of news aggregators
- highest-ranked international news provider

The following interpretation of the factor scores according to these parameters is based primarily on the news media that occur in the top-10 of each repertoire, because the top-5 represent the two right-most columns in the grid (values +4 and +3), and the top-6 to 10 represents the five news media located in the next column (value +2), which participants also regard as salient in their news diet. But we also draw on the news media ranked lower when characterizing the profiles below.

For each repertoire we note the demographic profile of its participants. This demographic profile is not intended to provide the 'hard facts' about the 'kind of people' who represent a repertoire; rather it is meant to be 'read backwards' so to speak, i.e. to validate the soundness of the repertoire, when the demographic profile appears plausible for the news media diet in question. For instance, if Repertoire 6 (see below) with its heavy preference for print news turned out to consist of young, low-educated participants, instead of (as is the case) old, high-educated participants, this might have then been seen as something that casts doubt on the soundness and plausibility of the repertoire. Additionally a repertoire's demographic makeup may also be used as a sensitizing lens to be used when analyzing the participants' interview discourses.

The interpretation of the factor scores resulted in the following news consumption profiles for the Danish sample. The label for each repertoire should be seen as a tentative, preliminary attempt to encapsulate the group's selection of news media from the marketplace of news in Denmark.

Repertoire 1: 'Online quality omnivores' (7 participants)

Top 5 news media: National quality newspaper online; Born-online news site; Public service broadcaster online; YouTube; International news provider online.

Top 6-10 news media: News from Facebook; News Aggregators; News from email; Free print newspaper; Blogs.

R1 prefers online news from both legacy and born-online news providers. Except for free print newspapers, the Top-10 is online only and includes legacy media online, social media online and news aggregators, email alerts and blogs. TV and radio news are given low priority, indicating cursory use. International outlook. Online legacy news media stand strong. Tends towards quality-conscious, as seen in the high ranking of National quality newspaper online; PBS online; International news online; and Blogs.

Demographic profile of the 7 participants: Mostly younger than 55, low-to-medium education.

Repertoire 2: 'Hybrid public service lovers' (6 participants)

Top 5 news media: Public service radio news; Online public service news; National quality newspaper online; National public service TV; Public service text-TV

Top 6-10 news media: International news provider online; Public service current affairs (serious); Regional/local TV news; Local weekly printed newspaper; Public service radio current affairs.

Seven of the top-10 news media are of PSB institutional origin, 6 of them broadcast, only 1 online, with a penchant for radio. Other TV news outlets follow just under rank 10. All of top-10 are legacy news media. Social media are outside the staple news diet (below rank 15). R2 people are faithful followers of PSM offline and online, in a predominantly traditionalist sense, but are not at all averse to 'familiar' online news sources. International outlook. Tends towards quality-conscious as seen in the high ranking of PSB online + broadcast; National quality newspaper online; International news online; and Current affairs TV + Radio.

Demographic profile of the 6 participants: 4 male, all older than 35.

Repertoire 3: '(Light) news snackers' (7 participants)

Top 5 news media: Tabloid newspaper online; 24-hour TV news; National public service TV; News from Facebook; News on Text-TV.

Top 6-10 news media: TV current affairs light; Tabloid newspaper print; National quality newspaper online; TV current affairs serious; Free daily newspaper online.

R3's primary news media cater to the need for frequent news updates in the brief and light genres, on a versatile range of technological platforms. TV formats dominate. Print platforms play a minor role, are generally at the bottom of the ranks. But newspapers online play an important role. There is a moderate taste for depth of information, in the form of TV current affairs. Born online news media and radio news are not really part of the daily picture. PSB TV formats are highly ranked in the top-10, as are newspapers across platforms.

Demographic profile of the 7 participants: Mostly female, mostly below age of 55, mostly low-to-medium education.

Repertoire 4: 'Mainstream networkers' (5 participants)

Top 5 news media: National quality newspaper print; News from other social media; International TV news; National public service TV; News from Facebook.

Top 6-10 news media: 24-hour TV news; TV current affairs serious; News from email; International online news; News aggregators

R4 has a versatile news repertoire, in some ways similar to R1. This repertoire is characterized by several news consumption strategies: One is to find news through one's online networks, another is to search for news through relatively mainstream national and international news providers, among them lean-forward news aggregators that supplement a variety of lean-back quality suppliers such as a National quality printed newspaper, National PSB TV news and serious TV current affairs. Radio is not an ingredient in the news menu, and overview-only and tabloid news media are all to be found well below the median of the repertoire's ranking. Conceivably these people use 24-hour TV news mainly for the more magazine/debate formats, not merely the updating functions. There is a conspicuous absence of prominent legacy media news online.

Demographic profile of the 5 participants: Male, all over 35 years, long education.

Repertoire 5: 'The intellectual/professional networkers' (5 participants)

Top 5 news media: News from Facebook; Radio current affairs; Professional magazines; TV current affairs serious; News on Twitter.

Top 6-10 news media: National quality newspaper print; Regional TV news; Text-TV; National public service TV news; National quality newspaper online.

R5 shares prominent features with R4: a key strategy is to find news through one's online networks (Facebook, Twitter). Unusual in a Danish context is the prominence of Twitter alongside the very common use of Facebook. The difference from R4 lies mainly in the choice of the most important news sources: two kinds of current affairs programs (radio, TV serious), where in a Danish context not least the use of radio current affairs could signal

belonging to a niche intellectual community. Even more unusual is the high ranking of professional/party-political magazines. Mainstream news media come in a second tier of importance.

Demographic profile of the 5 participants: Mostly under 55 years; all live in the capital.

Repertoire 6: 'Print addicts' (5 participants)

Top 5 news media: Free daily newspaper print; National newspaper print; Local weekly newspaper print; Local daily newspaper print; National public service TV.

Top 6-10 news media: News from email; Regional TV news; TV current affairs light; News not provided by news media; News aggregators.

R6 is dominated by printed newspapers, at national and local levels, and including both paid and free newspapers. This news fare is supplemented with National PSB TV news, followed by a diverse group of supplementary news sources encompassing two sources of TV news and two online-based news services (Email alerts; News aggregators). Apart from these two personalized (although in different ways) online news providers in the second tier, online news media are conspicuous by their absence, both in the form of legacy media online news (ranked below top-10) and social media (ranked below no. 15).

Demographic profile of the 5 participants: Mostly female, all above 55 years, none from low education group.

The news repertoires as paths to democratic prerequisites

This repertoire analysis in itself brings new knowledge about the complexity of people's news preferences in Denmark, as they navigate through the bewildering shelfware of the news supermarket. The six repertoires supplement the market share figures of the news industry and the news consumption surveys produced by academic research, by showing a ground level picture of news taste patterns lying underneath the TV news ratings, the newspaper readership figures, and the 'unique visitor' statistics produced by tracking tools. Such knowledge may be useful for news editors and policy-makers alike, as it shows the contours, for instance, of the relational pattern of print news reading with other news sources; the preferential dominance in some news repertoires of public service news sources; and the differential roles played by news from social media among different types of news consumer. The relational patterns as they have emerged in the typology of repertoires constitute findings in their own right. Their explanatory power can, however, be augmented by coupling the news user profiles above with the insights to be gleaned from the rich discursive material produced by the participants in the narrative and think-aloud

phases of the fieldwork. In the following paragraphs we provide a glimpse of the enriching effects of this discursive material, which will be analyzed in the next stage of the project.

Clearly it is not possible to postulate a one-to-one relationship between the composition of a news repertoire and the likely democratic consequences for those who inhabit this repertoire. Nevertheless it is possible at this stage of the analysis to cautiously point out some of the likely democratic affordances provided by a given repertoire – before adding more specific insights from the next stage of the present project about people's democratic engagement and participation.

When we analyzed the news repertoire system of Denmark five years ago (Schrøder & Kobbernagel, 2010) we pointed out, for instance, that the fact that only three of the seven 2009-repertoires included printed newspapers – traditionally held to be indispensable for a nation's democratic well-being – among the top-five news media, was not likely to have adverse effects on people's democratic prerequisites. This was because all seven repertoires included public service television news as well as online versions of the very same legacy news houses that produce the printed newspapers. We drew then on the finding of James Curran and his colleagues to the effect that regular exposure to public service media produces a citizenry with a high level of democratically relevant knowledge (Curran et al., 2009).

Considering the repertoires of the present 2014 study, we may observe that while national public service TV news only makes it to the top-5 of four repertoires, all six repertoires bear witness to the participants' perception that public service media content matters greatly in their daily consumption of news, be that in the form of TV news, radio news, online news, or Text-TV. One participant, who represents Repertoire 2 in our study, maintains her 'public connection' (Couldry et al., 2007) precisely by combining extensive usage of public service platforms with the online versions of the big national newspapers:

I think I have a relative fixed way of using news media. I use online media a lot. Obviously I'm really annoyed that you have to pay in order to read real news articles in most online newspapers. (...) I used to watch quite a lot of TV news, I don't think I do anymore. In the morning and in the afternoon when we're driving in our car, we listen to the radio flow on DR P1 [intellectual public service radio]. (...) I like the way they take the time to discuss things, to explain things thoroughly, instead of merely giving headlines and conflict. (...) At work I'm online all the time, so I consult DR online [public service online news], Politiken, Jyllands-posten and Berlingske [the three main national quality newspapers online] every day, but then I run into their paywalls. (...) When something really happens somewhere in the world, then we watch a great deal of BBC, not so much CNN, but also Al Jazeera to some extent.
(Repertoire 2, female, 54 years, university graduate)

In the same way, most repertoires include two or more public service sources of news in the top-5. And five of the six groups ascribe significance to the news provided by newspapers, in printed or online formats.

Four of the 2014 repertoires include news from one or more social media among the five news media they perceive to play an important role in their lives. While it is not possible to know precisely what kinds of news they get from social media – which may range from trivial and weird news to substantial and democratically important news (see for instance Bro & Wallberg, 2014) – it can be said with some certainty, relying on other research, that social media “help [people] find more diverse news and lead them to click on brands they do not normally use” (Newman et al., 2015: 7). This finding is so far corroborated by our preliminary analysis of the interview transcripts, as seen in the day-in-the-life narrative of this early retired nursery school teacher:

I primarily use TV and online news, radio I haven't used for many years. When I wake up in the morning I first go online, I check my email to see if anything happened. (...) Then I open Facebook and see what's going on there, then I open dr.dk [public service broadcaster website] and read the news. Then back to Facebook checking it out a bit more, which is when I can both get happy and also a bit excited sometimes – why have people put some of those things on? (...) There is for instance Den korte Avis [The short Newspaper, a born-online rightwing news provider], where I read articles which make me go “Oh My God!” And sometimes I also follow links to other online news providers, such as Avisen.dk [The newspaper, a born-online center-left newspaper], all extremely thin news stories, or ekstrabladet.dk [online version of print tabloid] for that matter. It happens that I end up on information.dk [online version of print center-left niche newspaper], which is at a somewhat higher level. (...) At other times I follow links to YouTube – I have a friend who is, what do you call it, a Danish-ethnic convert, and his whole purpose of being on Facebook is to put the spotlight on the situation of muslims in Denmark.
(pilot interview, female, mid-fifties, medium education)

For people whose social media lives take such a direction there appears to be no need to fear that our mediatized culture is on its way into an endless system of narrow-minded filter bubbles (see also below).

The ‘short head’ and the ‘long tail’:

Constructing the collective ‘news repertoire of Denmark’

The Top-5 slots on the grid of the Q study represent the news media which people perceive to be the most central and important ones in their everyday lives. The news media which participants place here are *visually distinguished* in the grid by being positioned in the two right-most columns, built of respectively 2 and 3 squares. Based on the 36 participants' Top-5 news media, we counted the occurrence of these high-ranked news media among the 36 participants.

In the Danish news universe there are eight news sources which nine or more of the participants have chosen as most strongly playing a role in their life, shown in Table 2. Because our Q sample of news media sources is representative of the Danish news media universe,

these eight news sources can be regarded as the central, shared news media among the participants in our sample of news users: They are news media which play a significant role in many people's lives.

Shared news platforms – Denmark 2014	No. of occurrences
1. National public service TV news	26
18. National quality newspaper online	19
27. News on/from Facebook	16
12. National daily quality print newspaper	14
5. TV current affairs serious	10
19. National tabloid newspaper online	10
3. Regional/local TV news	9
9. National public service radio news	9

Table 2. *The shared Danish news media universe 2014*

National TV news, national quality newspaper online and news on/from Facebook are the sources that top the list and which can therefore be regarded as most culturally significant. The eight sources can also be said to constitute a version of the collective news repertoire of Denmark, as a kind of 'common denominator' of the six segmented groupings of news consumption represented by the repertoires. It thus follows that the 28 news media that occur less than 9 times in the Top 5 positions ('the long tail') can be argued to be less culturally important, while naturally they may serve important functions for those citizens who use them.

This finding of a 'short head' and a 'long tail' of shared news media can be seen to supplement, at the level of news platforms and formats, evidence from a growing research tradition that has explored the extent to which media users narrowly select news sources which agree with their personal (for instance political) interests when faced with the abundance of the media manifold. The bulk of research into media users' more general preferential patterns is finding that there is "considerable evidence of cross-cutting exposure to news. (...) there's very little evidence of a massively parallel culture in the media choices of users. (...). There is, however, considerable evidence of a massively overlapping culture in which people move freely among a great many cultural offerings" (Webster, 2014: 119, 127). Similar findings have emerged internationally from both academic and industry research to the effect that most people consume a wide variety of types of news representing a broad spectrum of ideological viewpoints (Hermida et al. 2012; The Media Insight Project 2015; Pew Research Institute 2014).

The present repertoire analysis shows that also Danish news users are fairly homogeneous at the level of news platform selection: based on the six mutually diverse repertoires described above, their aggregate repertoire of news sources, with its hybrid ensemble of traditional and new media forms (TV news, 2 online newspapers, social media, print news-

paper, and TV current affairs) constitutes a largely shared national forum of news platforms and formats.

As the analysis moves on: towards deeper interpretations of national and transnational news repertoires?

In the section above on the news repertoires as pathways to democratic prerequisites we have briefly shown how our understanding of the lived experiences of the repertoires can be deepened by listening to the participants' spoken accounts of how news media are incorporated into their daily communicative figurations. Such coupling of the factor-analytical news repertoires with the participants' own accounts of their days-in-the-life with the news media can be drawn on both to supplement and to contextualize the repertoires of media preferences.

The next step of our analysis will consist in systematically going back to the qualitative sense-making, listening to the tape-recorded conversations of 'thick' participant discourses with the purpose of fine-tuning the news consumption profiles of the people representing the six repertoires. A concomitant step will consist in considering the repertoires more explicitly in a democratic perspective.

As mentioned at the beginning of this article, at the end of the day our study seeks to obtain a better understanding of the nexus of news media repertoires on the one hand and communicative, democratic engagement on the other. This issue was not only addressed in the day-in-the-life conversations; in order to obtain systematic, analyzable insights into daily democratic attitudes and practices we also applied a short questionnaire about communicative engagement and participation in democratically relevant activities at the end of each interview. The questionnaire sought to illuminate whether those representing a given news repertoire also substantially share communicative and deliberative practices, such as whether they mediate news to and discuss news with others, and whether they engage in political deliberation and participation online and offline.

These kinds of analysis are currently being conducted in each of the 12 countries, where researchers are replicating the research design presented in this article. Then will follow the transnational comparison between countries. This comparison will follow two tracks: On the one hand we shall do a nation-by-nation comparison, which will be greatly facilitated by the fact that national news consumption patterns will offer themselves for comparison in the form of rigorously computed repertoires, as demonstrated in the two-nation comparative study of Denmark and Flanders (Courtois, Schröder and Kobbernagel, 2015). The focal concerns of this comparison will include selected media categories, for instance the role of public service media and of social media in the national news repertoire systems, drawing on recent research on the shaping role of different media systems (Hallin & Mancini, 2004; Perusko et al., 2014; Brüggemann et al., 2014; Hölig, et al., 2016).

The second comparative track will seek to go beyond territorial nation-by-nation comparison and undertake a transnational Q-methodological analysis of complete transnational data set: “Without the data first being aggregated on a national-territorial basis (...), one can obtain a system of categories that describes not simply national differences, but more general common factors and differences in cultural patterns” (Hepp, 2013, p. 140f).

It is thus the ambitious goal of our transnational study to be able to build a new typology of news repertoires with transnational membership.

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Notes

- 1 The cross-national research project “The consumption of news media as democratic resources: A cross-cultural research project” is led by the Israeli scholars Hillel Nossek & Hanna Adoni, with 12 participating countries (Germany, Belgium (Flanders), Belgium (French), The Netherlands, Poland, Denmark, Croatia, Portugal, Spain, Israel, New Zealand, Canada). Methodologically, it replicates an original research design from the 2009 one-country study in Denmark (Schrøder & Kobbernagel, 2010), which was later (2011) compared cross-nationally with Belgium/Flanders (Courtois et al., 2015).
- 2 We say ‘approximate’, because the focus on news media clearly implies that we partially rely on a media-centric knowledge interest in mapping the role of this type of media as resources for democratic life.
- 3 The complete agenda of the cross-national comparative study also included a knowledge interest to do with how news repertoires interrelate with forms of democratic engagement and participation, and how such national repertoires of news use can be compared across cultures? A preliminary analysis of these aspects is reported in Schrøder (2015).
- 4 A factor with a group of negatively loading Q sorts is referred to as bipolar, and the conventional interpretation is that there are in fact two groups of participants with internally similar views but between each pole they are opposite in views. See also Frauke Zeller et al.’s (2012) study on digital journalism, where factor A has an A+—group and A—group. However if there are fewer than three negatively significant loaders, the bipolar structure is not considered clear.
- 5 Decisions of significance in Q methodology entail comparing correlations between the Q sorts of participants with the random situation. If for example three marbles labeled 1, 2, 3 were drawn multiple times from a bag, the result will look in 27 different ways. If these 27 sets are all pairwise correlated, the distribution of correlations is normal. If a correlation is higher or lower than three standard errors, we can consider the correlation to be not the result of a random situation. See more in Brown (1980, p. 279–283).

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Appendices

Appendix 1: News categories for the Q cards (Denmark September 2014)

TV

1. national TV news bulletin on a public service channel
2. national TV news bulletin on a commercial channel
3. regional/local TV news bulletin
4. TV current affairs, light
5. TV current affairs, serious
6. TV news, national 24-hour TV news channel
7. TV news foreign/international providers
8. News on Text-TV

Radio

9. Radio news on public service
10. Radio news on commercial channel
11. Radio current affairs

Print

12. National daily quality newspaper, print
13. National daily tabloid newspaper, print
14. Free daily newspaper, print
15. National news magazines or weekly quality newspaper, print
16. Local/regional daily newspaper, print
17. Local weekly/bi-weekly/monthly news publications, print

Online news media sites

18. National quality newspaper online
19. National tabloid newspaper online
20. Free daily newspaper online
21. National news magazines/weekly quality newspaper, online
22. Local/regional daily newspaper online
23. Local weekly/bi-weekly/monthly, online
24. National PSB online news
25. National commercial broadcaster's online news
26. International news providers' online news

News from social media

27. News on Facebook
28. News on Twitter
29. News on other social media
30. News on online video sharing media
31. Blogs with news

Other news sources

32. News received by email or SMS
33. Professional and party-political magazines
34. News via news aggregators
35. News from born-online news media
36. News online, not provided by media

Appendix 2: Comparison of five runs of factor analysis

Factor solution	10F	9F	8F	7F	6F
Unique significant loadings on factors	F1:5, F2:5, F3:3, F4:4, F5:3, F6:1, F7:2, F8:2, F9:1, F10:0	F1:6, F2:5, F3:3, F4:3, F5:3, F6:3, F7:2, F8:1, F9:0	F1:7, F2:5, F3:2, F4:3, F5:3, F6:3, F7:3, F8:0	F1:7, F2:5, F3:7, F4:2, F5:3, F6:4, F7:1	F1:7, F2:6, F3:7, F4:5, F5:4, F6:3
Cross-loaders on factors	10	10	9	6	3
Negative correlations on factors	3	4	4	2	1
Q sorts not significant in any factor	0	0	1	1	1
Total variance explained	81%	78%	75%	71%	67%

Appendix 3: News media rankings in factor 1 through factor 6

Ranking of news media in each factor (based on factor scores)		F1	F2	F3	F4	F5	F6
1	National TV news bulletin on a public service channel	21	4	3	4	9	5
2	National TV news bulletin on a commercial channel	16	16	18	15	19	16
3	Regional/local TV news bulletin	34	8	13	11	7	7
4	TV current affairs, light	35	27	6	14	23	8
5	TV current affairs, serious	22	7	9	7	4	19
6	TV news, national 24-hour TV news channel	30	11	2	6	36	14
7	TV news foreign/international providers	33	12	23	3	28	36
8	News on Text-TV	36	5	5	34	8	34
9	Radio news on public service	19	1	15	23	12	20
10	Radio news on commercial channel	26	28	19	25	35	27
11	Radio current affairs	25	10	28	26	2	35
12	National daily quality newspaper, print	29	18	34	1	6	2
13	National daily tabloid newspaper, print	28	33	7	29	29	28
14	Free daily newspaper, print	9	14	22	35	32	1
15	National news magazines /weekly qual. newspaper, print	23	24	36	22	26	25
16	Local/regional daily newspaper, print	32	17	35	17	34	4
17	Local weekly/bi-weekly/monthly news publications, print	24	9	11	32	15	3
18	National quality newspaper online	1	3	8	12	10	22
19	National tabloid newspaper online	14	31	1	27	21	17
20	Free daily newspaper online	11	34	10	36	25	13
21	National news magazines/weekly qual. newspaper, online	15	30	33	20	13	29
22	Local/regional daily newspaper online	20	19	27	30	24	21
23	Local weekly/bi-weekly/monthly, online	27	21	32	33	18	12

24	National PSB online news	3	2	12	28	14	24
25	National commercial broadcaster's online news	18	20	17	18	20	18
26	International news providers' online news	5	6	30	9	33	33
27	News on Facebook	6	36	4	5	1	15
28	News on Twitter	31	35	31	21	5	32
29	News on other social media	13	32	24	2	27	23
30	News on online video sharing media	4	4	16	19	16	30
31	Blogs with news	10	16	20	13	30	26
32	News received by email or SMS	8	8	21	8	31	6
33	Professional and party-political magazines	17	27	25	16	3	11
34	News via news aggregators	7	7	26	10	17	10
35	News from born-online news media	2	11	14	24	22	31
36	News online, not provided by media	12	12	29	31	11	9

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