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Merely Facilitating or Actively Stimulating Diverse Media Choices? Public Service Media at the Crossroad

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Personalized recommendations provide new opportunities to engage with audiences and influence media choices. Should the public-service media use such algorithmic profiling and targeting to guide audiences and stimulate more diverse choices? And if they do, is this a brave new world we would like to live in? This article outlines new opportunities for the public-service media to fulfill their commitment to media diversity and highlights some of the ethical and normative considerations that will play a role. The article concludes with a call for a new body of "algorithmic media ethics."

Keywords: algorithm profiling, public service media, media diversity, nudging, ethics

Introduction

PSM [public service media] will have no future unless it changes significantly. The key . . . change must concern the public media's definition of themselves, and especially of their relationship with the audience. (Jakubowicz, 2007, p. 7).

Can it still be the task of public-service media to add to the digital abundance and offer, among other things, content that competes with the offers of commercial parties? Or must the public mission shift from providing diverse supply to stimulating and enabling users to benefit from the overall diversity of media content that is available? Modern technological developments certainly do provide the opportunities for a more proactive engagement with not only the diversity of supply but matters of diverse exposure. This article argues that, in the "age of the user," the public-service media, when redefining their mission, must reflect on their relationship with users and the role of technology in giving that relationship form and meaning. In particular, I argue that technology can have an important role in helping the public-service media to not only promote diversity of supply but stimulate diversity of exposure.

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Common to the recent trends in media technology—such as smart TVs, second screen viewing, connected TV, search, personalized targeting, and social recommendations—is that they place the media–audience interaction central, allowing for a far more differentiated and intensified interaction between the media and the user. Technological advances also provide the media with the means to more proactively approach the question of what kinds of content users are exposed to. Interactivity, search, recommendation, and personalization strategies open up new opportunities to guide or even "nudge" the audience toward more diverse consumption. In so doing, the public-service media could actively counter fears about "filter bubbles" and selective exposure. Public-service media today are at a crossroad where they must decide how personal, persuasive, and responsive their relationship to the audience should be, and what safeguards are needed to preserve autonomy, privacy, and the public sphere.

The goals of this article are to conceptualize the possible roles of public-service media in adopting a more proactive approach toward diverse exposure[2] and to reflect on some of the normative and ethical considerations that should be taken into account. This is a conceptual article that aims to provide timely input on the potential role of the public-service media for several influential consultations at the national and European policy level. Important policy documents, such as the European Commission's Convergence Green Paper, highlight concerns about negative effects on media pluralism and exposure to diverse content. Information abundance, attention scarcity, and new gatekeepers (but also new forms of commercial and public surveillance) as well as unprecedented possibilities of filtering and steering affect users' media consumption (European Commission, 2013; European Parliament, 2008; High Level Expert Group on Media Freedom and Pluralism, 2013).[3] The methodological framework for this article includes a review of the relevant media policy documents at the European (European Commission, Council of Europe) and national levels (in particular, the Netherlands and by way of comparison the United Kingdom, where the dialogue on exposure diversity as public policy goal is more advanced than in other European countries). The analysis is based on relevant media law and policy and communication science literature as well as an emerging body of literature on the ethics of persuasive technologies. After a brief discussion of exposure diversity as a policy goal and the role that the public-service media have played so far, I explore ways that public-service media can use new technologies to promote and stimulate exposure to and engagement with diverse media content. The article offers some reflections on possible ethical and normative implications, and the conclusion makes an argument for the development of a body of "algorithmic media ethics" to guide the public media's involvement with profiling and targeting technologies.

Exposure Diversity and Public-Service Media's Mission

When discussing media diversity and pluralism,[4] traditionally, reference is made to *diversity of supply*—that is, that a sufficiently diverse mix of media content is available from diverse sources. The

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[2] In addition to diversity of supply, which will continue to remain a central task of the public-service media.

[3] See http://www3.ebu.ch/cms/en/knowledge/vision2020.

[4] Notions of diversity and pluralism are used throughout the literature differently and are both notoriously difficult to define (Karppinen, 2012). This article adopts the more pragmatic definition by McGonagle

public-service media play a critical role in that context. An aspect that has been less prominent in traditional diversity policies is the actual choices users make as another, different dimension of media diversity—known as "diversity of exposure" (Napoli, 1999) or "content as received" (McQuail, 1992). Exposure diversity examines the audience dimension of media diversity and asks to what extent the diversity of content and supply actually results in a (more) diverse program consumption. A related question is to what extent media content is "realistically accessible" (Cooper & Tang, 2009; Hargittai, 2000). Evidence from empirical studies demonstrates that, although it is a necessary precondition, "on its own diversity of supply cannot secure diversity of reception" (McQuail, 1992, p. 158) or "diversity of choice" (Van der Wurff, 2004) for the audience. The diversity that is being broadcast is not the diversity that is being consumed in people's homes (Cooper & Tang, 2009; Napoli, 1999; Prior, 2004). More supply can even result in less or more selective exposure on the side of the audience, prompting concerns about information overload and selective exposure.

From the perspective of public media policy, such findings have at least two important implications. First, the traditional, mostly supply-side-oriented policies are, at best, incomplete in realizing media diversity as a policy goal, at least from the audiences' perspective (Helberger, 2012b). In the worst case, they are counterproductive because they overload the audience with diverse information without also creating an environment that helps users to make meaningful, diverse choices. More specifically for the case of public-service broadcasting policies, although much effort and financing goes into supplying a diverse program offering, the return on that investment is rather uncertain, because it is unclear how much of that diversity (or a snapshot thereof) actually makes its way to the user.

Second, to stimulate not only diverse supply but diverse exposure, complementary initiatives might be needed. Media diversity is not a goal in itself but a means to produce a particular effect on the audience. Media diversity policies can only reach that goal if the audience can fully benefit from the diversity that is being supplied. Also from the perspective of media suppliers and all those who want to make their voices heard, the question of whether they are able to reach their audience is an increasingly pivotal question in the brave new world of digital abundance (Napoli & Sybblis, 2007). Accordingly, modern media policies, as well as public-service media as part of these policies, cannot afford to ignore the question of how the diversity that is sent actually reaches (individual members of) the audience.

This is not to say that public service media have not already played a role in furthering diverse exposure. To a certain extent, particularly in the old times of channel scarcity, the fact that there were one or even more public-service channels naturally increased the probability of exposure to its (diverse) programming. And traditionally, one task of the public-service media has always been to stimulate the audience and to create an interest in a diversity of contents. Also, the role of public-service media in fostering media literacy includes a component of educating the audience and stimulating its appetite for diverse content. Similarly, the various calls for the public-service media and initiatives to invest particular

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(2011), according to which pluralism refers to issues of media ownership and the choice of the public between different providers of services, whereas diversity refers to the range of programs and services available. This article will focus predominantly on matters of diversity.

attention and effort in winning younger audience members are examples of measures to proactively stimulate exposure.

More recently, there has been growing attention to the question of how the public-service media could use new technologies to elevate their engagement with matters of exposure diversity. For example, the Council of Europe as well as the European Parliament did acknowledge that modern technologies offer opportunities for direct engagement with audiences and that public-service media should make use of that fact in fulfilling their mission (part of which is presenting audiences with a diverse media offering). Public-service media are encouraged to adopt a pioneering role, go beyond their traditional role to offer a diversity of supply, and play a more active role in helping that diverse offering to reach the audience. In this context, the European Parliament refers explicitly to "innovative media and distribution techniques" (European Parliament, 2010, para. D). More concretely, the Council of Europe (2007) mentions the need to explore opportunities from using "personalized interactive and on-demand services," "establishing participatory schemes," and acting "as a trusted guide of society, bringing concretely useful knowledge into the life of individuals and of different communities in society" (paras. II.a.5, II.b.9). In other words, both the European Parliament and the Council of Europe explicitly have encouraged the public-service media to not only offer qualitative and diverse content but use technology to engage more directly with individual users (Council of Europe, 2007).

At the national level, a more active involvement of the public-service media in stimulating diverse exposure is considered. In the Netherlands, for example, the Dutch Culture Council (Raad voor Cultuur) has recommended that the public-service media should adopt a "public guide function," including not only their own content but third-party and user-generated content (Raad voor Cultuur, 2014). And in the United Kingdom, the BBC Board of Trustees, in its review of the BBC, considered the opportunities from personalization strategies which, "if done effectively," could "become important in serving audiences well" (BBC Trust, 2013). What all these reflections have in common is that they consider additional ways for the public-service media to engage with their audiences and bridge the gap between diversity of supply and diversity of exposure. What is still missing, however, is a more concrete conceptualization of how exactly public-service media might do this and what the role of new technologies such as search, recommendation, and personalization strategies could be.

A More Proactive Approach to Exposure Diversity

Before examining how the public-service media already do or could use modern technologies to promote more proactively diverse exposure, some conceptual clarity is needed on what diverse exposure actually is or, rather, which goals diverse exposure is meant to serve (assuming that media diversity, from a public policy point of view, is not a value in itself but a means to achieve certain goals). It is beyond the scope of this article to discuss questions such as what a diverse choice is or whether we can speak of exposure diversity if people are exposed to a variety of content, or whether there is more to the concept (see Helberger, 2012a). It is the task of media policy to imbue the notion of exposure diversity with meaning and to define clear goals within the larger social, cultural, and democratic context as well as public policy. Ofcom, the British regulatory authority for the media sector, has made a laudable first step toward accomplishing this task by specifying the overall objective of pluralism and diversity. According to

Ofcom (2012), the objective is to contribute to a well-functioning democratic society through informed citizens. Although far from being a comprehensive definition of exposure diversity, the Ofcom definition gives at least some guidance on what exposure diversity from a user perspective could mean: to be "able to access and consume a wide range of viewpoints across a variety of platforms and media owners" (Ofcom, 2012, p. 8). In other words, diversity should make people smarter and better informed. The question that remains: How?

Elsewhere, and informed by theories about the role of the media in a democracy, I have argued that, to contribute to democracy and informed citizens, diverse exposure must serve at least three objectives (cumulatively or alternatively): confronting users with "the different," purposefully or via serendipitous encounters; diversifying conversations; and coaching the citizen as autonomous actor (Helberger, 2012a). Because a discussion of all three objectives would exceed the scope of this article, I concentrate on the first objective: organizing confrontations with the different. Personalization strategies, profiling, and targeting media users play various roles in confronting the audience with differing views and opinions.

Nudging to Choose Diverse

To be truly informed, it can be argued, citizens must venture outside of a personal comfort zone of established beliefs and tested opinions and expose these to diverging and conflicting opinions and ideas. A balanced view on news, trends, and events is not only the prerequisite of good journalism, it is also the constituting factor of what it means to be an informed citizen (Karppinen, 2012; Rawls, 1991). In this light, diverse exposure is instrumental in fostering awareness of divergent opinions and ideas and in promoting discovery and appreciation, or at least respect, of the differences.

Discovering the difference requires awareness of different topics, views, and issues and, as such, also exposure to content, sources, or categories that a user would not necessarily have selected herself. But for users to be able to discover the different, it is not enough to expose them to unsought-for, new, or unpopular content. Exposure must take place in a way that stimulates comparison and reflection (Helberger, 2012a). This also means that it is not enough to supply diverse media content. The audience must also (a) have a realistic chance of being exposed to that (diverse) mix of content, and (b) engage in what Schauer (1982) has described as an "adversary process": "As we use cross-examination to test the truth of direct evidence in a court of law, so should we allow and encourage freedom to criticize in order to test and evaluate accepted facts and received opinion" (p. 14).

Exposing viewers to a range of different content and views is at the core of the traditional task of public-service media. It is, for example, a guiding principle behind the internal pluralism that characterizes the program and internal composition of public-service broadcasters in many European countries. The presence of public broadcasting and the trust that the audience exhibits in many countries in its "brand" are important factors of stimulating diverse exposure in a convergent, searchable environment. Simply waiting for the content to be discovered by the audience is no longer enough because of the sheer amount of content that is on offer (Ellick et al., 2014). More active means of guidance and discovery are needed to stimulate diverse exposure: search engines, electronic program guides, social apps, and other referencing

and recommendation services or applications have a pivotal influence over people's exposure to diverse media content (Hargittai, 2000; Stark, 2009; Webster, 2010).

Remarkably, in the present policy discourse, search and filtering mechanisms are generally either perceived as an *instrument of the audience* to seek exposure to content they are looking for or as a *threat* to diverse exposure because of (commercial) bias and a tendency in the audience to concentrate searches on the information that corresponds to personal interests and perspectives (European Commission, 2013). There is a third option, however: Search and recommendation systems can be used to help or even stimulate (nudge) the audience to choose more diverse content. Evidence suggests that even traditional electronic program guides can have a positive effect on the diversity of content users expose themselves to (Stark, 2009). The possibilities that modern profiling and targeting technologies offer are even more interesting.

In short, if it is possible to design electronic program guides or other search intermediaries, such as search engines, in a way to help users find the content they are interested in, then the same technology also can be used to do potentially the opposite and point users toward more diverse choices ("diversity by design"; Helberger, 2012a; Munson & Resnick, 2010). Diverse electronic program guides, recommenders, and search engines could present viewers with alternative or complementary content on a particular topic from different sources or from contrasting political or cultural backgrounds. Suggesting information that users otherwise would not have chosen (or even known existed) could help them to break out of established routines and filter bubbles.

Profiling and targeting media users, as worrisome as it can be in terms of privacy, social sorting, personal autonomy, and unfair competition, can offer interesting prospects in that respect as well. Profiling and targeting allows the media to get a fairly detailed idea of the preferences, education, and political orientation of audience members and adjust media content accordingly. Either it is the user who feeds the media with information about personal interests and preferences, or the media learn about the user by gathering user and usage data from elsewhere (Thurman & Schifferes, 2012). Examples are the monitoring of users' past viewing activity (Google News) or the topics users post or Twitter about (*New York Times*–backed News.me and Prismatic), inferring personal interests from social profiles (*Washington Post*, Telegraph.co.uk, and Zite.com), tracking the websites users visit (NRC and NOS), recognizing what users are watching (context-aware TVs), and registering the geographical location of user devices (*Financial Times*).

That knowledge typically is used to expose the audience to more personally relevant (and hence possibly more effective) advertising or media recommendations (Calo, 2014; Turow, 2011). But, of course—at least in theory—the opposite scenario is also possible. The media can use their intimate knowledge of individual users to challenge individual users to serve items that broaden users' horizons and go beyond strictly personal preferences. This latter approach—to expose users not to personally relevant but rather to more diverse content—is particularly attractive for users who are diversity-seeking as opposed to challenge-averse users (Munson-Resnick, 2010).

Who is fit to guide or nudge the audience this way? One option would be to burden (selected) commercial providers of search and recommendation systems with an obligation to promote diverse exposure (Foster, 2012). The feasibility and wisdom of such an approach when applied to commercial players depends on whether a viable business case can be made for recommending or pointing users to different content than they have searched for. Alternatively, it has been suggested that it should be the task of the government to finance independent search intermediaries via a public-funding model to compensate them for performing a task that may not be commercially viable (Hege, 2012). It has even been argued that such a publicly funded search engine could contribute more to the public discourse than much of the (expansive) content offered by public-service media (Hege, 2012). Though the argument seems appealing at first, again a range of serious counterarguments arise. One is the lack of measurable benchmarks of when exposure is sufficiently diverse against which such a publicly funded entity could be held accountable. Moreover, public funding alone is not a guarantee of quality and impartiality. There are also legal considerations, including constraints on the lawfulness of state subsidies.

Importantly, generating diverse recommendations or search results requires a level of editorial insight that operators of search intermediaries and similar applications may not have. Arguably, the provision of balanced and diverse content suggestions should be seen as an extension of the traditional editorial process, one that is governed by media ethics as well as normative commitments to media diversity (BBC Trust, 2013). Media scholar Ellen Goodman (2008) even suggests that this may be "the highest and best purpose of the august institutions of public broadcasting" (p. 21). Even if the public-service media are not impartial, at least they are subject to strict scrutiny of the way they conform to media ethics and their public mission. Also importantly, to the extent that public service media can be seen as a guarantor of quality and editorial balance, the audience's trust in the public-service media brand will increase the acceptability of its recommendations.

Some Normative and Ethical Considerations

Search and recommendation services, personalization, and targeting strategies as well as algorithmic predictions can offer new avenues to fundamentally redesign the public-service media's relationship with the audience. They allow the media to get closer to the audience, even address individual users. This direct interaction with users can be used to leverage the public media's authority and trust to not only inform but stimulate the audience to choose, read, and watch more diverse content. The possibility to steer and influence users' choices more proactively offers exciting new prospects for the realization of media diversity as a policy objective. But using such "technologies of persuasion"[5] also may invest the public-service media with unprecedented powers to influence not only media choices (and perhaps even more importantly, what audiences do not choose) but audiences' thinking and intellectual development. Such unprecedented powers come with an entirely new set of responsibilities. Thus, it is important to investigate not only what the potential technologies can offer but the objective methods and outcome of technology-mediated persuasion (Berdichevsky & Neuschwander, 1999; Verbeek, 2006).

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[5] Persuasive technologies have been helpfully described as "technologies that are intentionally designed to change users' attitude, behavior, or beliefs . . . often by giving the user feedback of his actions (or omissions) and by trying to 'suggest' to him a desired pattern of behavior" (Spahn, 2012, p. 1).

Inspired by a growing body of literature about the ethics of persuasive technology, the next section offers some reflections on normative and ethical implications of a more proactive approach to exposure diversity by public-service media. In so doing, the article follows the evaluation framework suggested by Verbeek (2006), which structures the analysis into aspects of the ethical acceptability of the intended persuasion, the methods used, and the acceptability of the outcome.

Intended Persuasion: Media Pluralism and Competing Objectives

The ethical acceptability of a more proactive approach to stimulating users' media consumption depends, first of all, on the acceptability of the objective itself as well as its relation to the legitimate interests of and costs for others (Berdichevsky & Neuschwander, 1999; Verbeek, 2006). The cultural, democratic, and personal benefits of exposure to diverse media content are generally acknowledged and seldom doubted. The question is how absolute the value of media pluralism is when weighed against other interests.

Often overlooked in the discussions around media diversity policies is the fact that the realization of media (exposure) diversity competes with the realization of other, not necessarily less valuable, social, democratic, or economic public policy objectives. Examples are the need for reducing complexities (Neuberger & Lobgis, 2010) and helping audiences to focus on information that matters to them. There is also the freedom not to hear or encounter certain information (Fenchel, 1997) and the freedom to call for special attention for particular groups or ideas. Some media will concentrate on entertainment rather than on politics or culture. Nudging the audience to consume a diversity of media content necessarily involves some element of value judgment and favorable representation of some types of content above others. This and the fact that the audience, for physiological reasons, is only able to handle a small selection of content, will ultimately result in differentiation and prioritizing some types of content above others.

Against this one could argue that making a selection and prioritizing certain items of information over others is an inherent part of any editorial activity. The critical difference between editorial (human) decision making and algorithmically mediated decisions is that the former is guided by transparent editorial guidelines and commitments to journalistic quality and integrity for which the media can be held accountable, and the latter is not. The editorial activities of the media are, for a significant part, subject to self-regulation (in the form of journalistic codes, internal policies, and guidelines). For the time being, typically, the principles of fairness, impartiality, truthfulness, and respect for the rights of others that are enshrined in these codes and internal guidelines are still focused on the process of producing a story, not on the process of recommending and stimulating choices between stories.[6]

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[6] See, e.g., BBC Program strategy 2013/2014 at
http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/workplan300513.pdf; ARD Programming Principles at http://www.ard.de/home/intern/fakten/abc-der-ard/Programmgrundsaetze/554870/index.html; or the general terms of the Dutch NOS http://over.nos.nl/organisatie/regelgeving.

Acceptability of and Concerns About More
Proactive Modes of Stimulating Diverse Exposures

Of course it is the user who decides in the end whether to follow a personalized recommendation. Thus, particularly with parties that enjoy the audience's trust—as public service media often do—the persuasive potential of using methods such as search and recommender systems, social network communication, or personalization and targeting strategies is considerable. This is a situation that can lead to new imbalances and concerns in the technologically mediated relationship between users and the media. Among the various concerns discussed in the literature, six issues are particularly relevant in the context of the public-service media: asymmetries in the relationship between the public-service media and the audience, nondiscriminatory access to media content, the autonomy of users, privacy, integrity, and accountability and editorial responsibility (Berdichevsky & Neuschwander, 1999; Spahn, 2012; Verbeek, 2006).

Asymmetries in the relationship between users and the public service media can negatively affect users' trust and acceptance of public-service media. Power asymmetries can also trigger ethical and normative trepidations about undue paternalism, abuse of power and manipulation, access to information, and, ultimately, a loss of autonomy. One example of such an asymmetry was the use of so-called cookie-walls by the Dutch public-service media. In response to an amendment of the "cookie-rules" in the Netherlands, the Dutch public broadcasting services were among those that made access to the website conditional upon the users' consent in the use of tracking cookies. The Dutch data protection authority objected to this practice, pointing out that there was no alternative way for users to access the online information of the Dutch public broadcaster, which, according to the authority, occupied a "factual monopoly position." Users were essentially presented with a take-it-or-leave-it choice. The incident clearly demonstrated that, because of the public-service media's critical role and power in the democratic opinion forming process, there must be limits to the use of tracking technologies, even if used for a principally useful and legitimate goal. The accessibility of the overall offer of the public-service media is one of those limits. A broader lesson to take away is that the public-service media cannot use its particular position to pressure users into the acceptance of persuasive technologies; there must always remain a choice of watching and reading untracked and untargeted.

Another question is to what extent the goal to expose individual users to more (personally) relevant or diverse content may lead to forms of *differentiation and (positive) discrimination*. Making personalized recommendations or preselections necessarily involves an element of differentiation on the basis of personalized characteristics. Some of these characteristics can fall under the list of grounds on which discrimination is considered socially inacceptable and even unlawful (e.g., according to Article 14 of the European Court of Human Rights) such as sex, race, language, religion, political opinion, or association with a minority. Some grounds, such as language, may be a reasonable parameter to differentiate among audience members. Others are not. One can doubt, for example, the acceptability and long-term effect of a situation in which men receive different news than women, or where U.S. citizens receive recommendations for different programs than Dutch viewers (Gandy, 2001; Turow, 2006). This, coupled with the mandate of the public-service media to make their programming available to entire populations, highlights the importance of making sure that differentiation never leads to the exclusion

from access to the overall program offering. Also, personalized recommendations (Gandy, 2001) should be delivered in ways that stimulate engagement with the differences in society rather than reinforce such differences.

Regarding matters of *data protection and privacy*, much of the ethical and legal discussion has concentrated on finding the right balance between the freedom of expression of the media and the right to privacy of those the media report about (Helberger, 2013). Interestingly, and in response to the cookie-wall incident, the Dutch data protection authority has recently made a first step toward acknowledging the special, protection-worthy position of media users by suggesting that information about media usage be considered "sensitive information" in the sense of a data protection law, with the result that users would need to explicitly consent to the processing of such information (College Bescherming Persoonsgevenens, 2013; Richards, 2008). This article is not the place to delve into the controversial question of whether informed consent–based solutions can be effective to protect users' interests in autonomy, privacy, and fair processing of their data (for an extensive discussion, see Zuiderveen-Borgesius, 2015. The point here is that, beyond the requirement to inform and secure consent from users, there should be a sphere of discretion between the media and users that the media are simply not allowed to overstep.

According to Simmel (1906), an important thinker about the sociology of secrecy, "Discretion is nothing other than the sense of justice with respects to the sphere of the intimate contents of life" (p. 454). Following and identifying the reading habits of media users provides an intimate insight directly into their minds, or what Richards (2008) called their "intellectual privacy." This intimacy, together with the particular sensitivity of (particular types of) information for the democratic opinion forming process are arguments in favor of restraints on profiling and "persuading" media users. Arguments could be made, for instance, in favor of not using profiling and/or persuasive technologies in relation to particular kinds of information (e.g., news or religious content) and not in particular situations (e.g., before election times or in situations in which the editorial independence of the public-service media is at risk) and not to share certain types of information with third parties such as advertisers and political parties.

Integrity is another contentious issue for the trust relationship between the audience and the media. Of course, persuasive technologies can be used to noble ends, but they also can be used for other, less noble purposes, such as manipulating audiences. This is also an issue with the public-service media whose independence from the government and advertisers varies across member states. Turow (2011), for example, demonstrated rather impressively how the advertising industry pressures the media into collecting ever more personal information about readers and listeners. This is to better target advertisements but also to induce the media to present personalized content as the right frame for advertisements. Public-service media, though often publicly funded, are not free from commercial influences. This is why it is important to observe the trust of the audience in the integrity and character of the messages transmitted.

The protection of the (audience's trust in the) editorial integrity of news and other forms of media content is not a new concern. Elaborate legal and self-regulatory safeguards are in place to ban undesirable influences and foster transparency for both the audience and regulatory authorities. A yet unanswered question is to what extent the existing rules are apt to address new forms of commercial

persuasion. Modern practices such as idea targeting and native advertising focus on creating a favorable user experience rather than engaging in blunt instances of sponsorship and commercial communication from the world of the traditional mass media. It is therefore not only the integrity of media content and transparency about eventual (political and/or commercial) sponsors that is at stake. Perhaps more worryingly, there is the influence of third parties to consider in the earlier phase of modeling attention and expectations toward particular items of content.

All these observations point to the importance of *public accountability and editorial responsibility* when the public-service media use technologies of persuasion. The use of persuasive technologies by the media, and public service media in particular, confers considerable powers to the media and responsibility toward society and individual users. The current lack of objective benchmarks of what (the goals of) diverse exposure should be, aggravates the situation and invites abuse. Accordingly, any initiatives to stimulate the audience to choose diverse content should be subjected to high and transparent standards of editorial responsibility not only regarding the journalistic activity but the way the media use persuasive technologies to expose users to that content.

The Outcome: Paternalism New Style?

For a long time, the traditional criticism of the media—and the public-service media in particular—was that it stood too far away from their audiences and was too little responsive to their needs and interests. Instead of directly relating to audiences, public-service media are frequently associated with "patronizing elitism" (Ytreberg, 2002), deciding for the audience what is worth watching and good, valuable, and relevant to society and democracy. In contrast, with the improved possibilities to directly interact with individual users, the public-service media can be extremely responsive to users' interests and needs. And yet, if that knowledge is used to not serve users what they demand but rather what they "ought" to see, are we heading inevitably to a new form of paternalism?

To answer this question it is helpful to view paternalism in contrast to other models of a relationship between users and the media (Fotion, 1979). Paternalism, as the name implies, refers to a particular relationship that is characterized by a strong imbalance of knowledge and power, the presence of hierarchy, and the lack of choice (one cannot easily opt out of family). Paternalism needs to be distinguished, for instance, from the societal function of the public-service media to enlighten the audience, broaden its horizons, and present users with alternative viewpoints and ideas.[7] Helping audiences to choose more diverse content also can be an element of the role of the public-service media in educating users.

The difference between paternalistic involvement and coaching media users is not clear-cut. Arguably, one important differentiating factor is the level of asymmetry between users and the media (see above) as well as the opportunity to hold the media accountable, including the option to opt out without fear of consequences. (It is worth noting that concerns about the paternalistic stance of public-service media date back to a time of channel scarcity and a situation in which the public-service media held a

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[7] I am grateful to one anonymous reviewer for drawing my attention to this aspect.

monopoly-like position on media information.) A related, critical aspect is the objective of the exercise. Education aims at personal development into an autonomous being. Manipulation seeks to exploit asymmetry and foster dependence (Hansen & Jespersen, 2013; Spahn, 2012). In other words, if media personalization is used to broaden users' horizons and help information-overloaded users to find their way, this certainly can be a useful exercise.

Yet another difference is a procedural one and concerns the documented presence of editorial guidelines or other forms of communicating the main considerations and parameters of proactive involvement to the public. This aspect is closely related to the first one, because it is the basis for being able to hold the media accountable. The opposite scenario would be a situation in which the public-service media simply decides what is good for the audience. Another difference might be the comprehensiveness of the data collected: minimalizing the collection of user data to what is absolutely necessary for making accurate recommendations versus a comprehensive, "fatherly" knowledge about behavior, interests, and preferences without corresponding rights of individuals to safeguard their dignity, autonomy, and privacy. Put differently, the critical difference between new forms of paternalism and a logical evolution of the public-service media mission is the level of the symmetry of powers and the presence of suitable procedural safeguards, a clearly predefined mission, and accountability mechanisms (including the option to opt out as the ultimate form of holding the media accountable).

Concluding Remarks: The Need for Algorithmic Media Ethics

This article has argued that advances in new technologies to profile, target, and socialize with users also provide the public-service media with new opportunities for the promotion of media diversity. In a situation of content abundance and limited attention, the public-service media could have an important function in contributing to not only the diversity of supply but also to the diversity of exposure. This proposition inevitably triggers the question of whether we would like to live in a world where the (public–service) media research, determine, and even predict our information needs and preferences and steers us toward more diverse choices.

Based on the exploration in this article of the possible normative and ethical considerations, the answer is: not without a clear commitment to algorithmic journalistic ethics and appropriate legal safeguards in place. Though it is true that, in the end, it is the audience who decides to listen, believe, and act, the public-service media themselves must still assume responsibility for proactively guiding or even influencing the audience (cf. Berdichevsky & Neuschwander, 1999). In this context, it is also worth noting that, as this article demonstrated, the media already do engage in wide-ranging collections of user data. One could argue that if the media use big data and smart algorithms to profile and target audiences with media content, then this should be done, if at all, only for socially accepted reasons, and subject to editor-like responsibility.

Although there are good arguments against an editor-like responsibility of operators of search engines and social networks in general (Van Hoboken, 2012), in cases where filtering and ordering technologies are used in extension of the traditional task of the media, it is only reasonable to expect adherence to some comparable and transparent standards of algorithmic media ethics. It is submitted

here that, in addition to commitments regarding the truthfulness, impartiality, and fairness of the information offer, principles are needed that address the way media content is communicated and brought to the attention of the audience—an aspect that has received little attention so far. Importantly, there must be safeguards in place to prevent asymmetries between those targeting and the targeted, which have negative repercussions for overall information access and the democratic and societal mission of the public-service media. Access to media content must not be made conditional upon the acceptance of tracking and profiling technologies; neither should it result in a situation that certain parts of society, based on their profile, are excluded from media content. There also needs to be an ethos of professional discretion preventing the media from collecting or even sharing certain, particularly sensitive items of information (e.g., on political or religious reading behavior), or doing so in situations in which users are particularly vulnerable to persuasive manipulation (e.g., during election times or where there is a lack of institutional safeguards of independence of the public-service media). Finally, such standards would need to provide guidance when the use of persuasive technologies is undesirable, either because they lead to societally unacceptable outcomes or because they conflict with protected rights, including the right to fair processing of individual data and the intellectual privacy of media users.

Another question is whether this would be a world the public-service media would like to operate in. With the ability to intensify their relationship with audiences and exercise even greater influence on public opinion forming also comes an enormous responsibility and, hopefully, even stricter scrutiny from regulators, competitors and individuals. An intensified engagement with audiences and exposure diversity would also produce additional costs, which can be a reason of concern for the already strained budgets of the public-service media in some countries. Also, the shift from informing to educating and coaching audiences cannot leave the mandate of the public-service media unaffected and will have far-reaching repercussions for the public-service media's understanding of their mission as public agenda setter and motor behind the public sphere. On the other hand, maybe we should look more critically at that traditional function and ask, as Edin (2006) does, whether it is "only when the hallowed idea of the television audience as a national, collective entity has lost all credibility that new claims of public service can arise" (p. 67).

Not only the relationship between the public service media and the audience is up to change and modernization but our thinking about the role of media diversity in a democratic society and the different routes that lead to it. A more proactive approach of the public-service media in guiding and stimulating audiences' exposure to diverse content could be the response to often-voiced concerns about filter bubbles and ego-chambers. And in the new race for users' attention and loyalty, the public-service media could help to set a standard of integrity, fairness, and commitment to diversity in the area of search, recommendation, and active involvement of the audience in a democratic dialogue.

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