The effect of democratic media quality on user engagement on Social Media: An Analysis of the contents of five Swiss news media outlets on Facebook

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Zusammenfassung

Die demokratietheoretische Qualität von Newsinhalten auf sozialen Medien ist vor dem Hintergrund der Digitalisierung der Öffentlichkeit von gesellschaftlicher Relevanz. Können jedoch Newsinhalte von hoher Qualität genügend Engagement erzielen, um in den Social Media Strategien aufgenommen zu werden? Dieser Beitrag analysiert die Publikationen von fünf Schweizer Online-Newsmedien auf Facebook und verbindet demokratietheoretische Qualität mit der Intensität der Nutzerreaktionen (Engagement), gemessen als die Summe von reactions, shares und comments. Die Analyse zeigt eine positive Korrelation zwischen niedriger Qualität und hohem Engagement: Je geringer die Themenrelevanz und je weniger professionell die Artikel, umso höher das erzielte Engagement. Leitmedien können jedoch mit qualitativ hochstehenden Inhalten hohes Engagement auslösen, was auf die Relevanz der Medientypen verweist: Einordnungsleistung, d.h. die informative Tiefe eines Artikels, hat einen signifikant positiven Effekt auf Engagement im Fall des qualitativ hochstehenden Medientitels NZZ.

Keywords: Medienqualität, digitaler Strukturwandel, Social Media, Engagement

Summary

The democratic quality of news content on social media is of societal relevance as the public sphere undergoes digitalization. But can high quality news content achieve enough engagement in order to be included into the social media strategies of news outlets? This contribution analyses the publications of five Swiss news outlets on Facebook and correlates their democratic quality with their achieved engagement, measured as the sum of reactions, shares and comments. The analyses show the positive correlation between low quality and high engagement: The lower the topic relevance and the less professional the style of an article the higher the user engagement. Still, legacy media can achieve high engagement with high quality pointing at the effects of media types: Contextualization, i.e. the informative depth of an article, is positively correlated with user engagement in the case of the high-quality news outlet NZZ.

Keywords: media quality, digitalisation, social media, engagement

Introduction

Social media have become a central platform for news outlets in making their contents available and reaching audiences (Mitchell & Page, 2014b). Especially younger cohorts, the bulk of future news audience, rely increasingly on social media in order to consume professional news offers. Among those users, directly accessing those sources online or in print has become a less frequent consumption pattern. For instance, in Switzerland, the country on which the subsequent empirical analysis will focus, almost one fourth of the population aged between 18 and 24 years old used social media in order to access professional news in 2017 (Newman et al., 2018). This trend leads to an essential transformation in news consumption, in the sense that social media audiences inevitably consume news from various sources and a varying number of individual articles deriving from them, rather than a given news outlet in its entirety. Subsequently, individual "news bundles" are composed by the consumer herself and news outlets are faced with the requirement to market each article individually rather than their overall offer. In accordance, empirical studies found that the economic success, i.e. web traffic generated on news sites deriving from social media, largely depends on user activities related to given articles (Kümpel et al., 2015). User engagement, i.e. interactions based on the article in form of likes, shares, and comments, plays an important role in attracting traffic from social media, resulting in an increased interest of news outlets in generating engagement in social media with their offers (Mitchell & Page, 2014a). In this constellation, the potential of an article to attract engagement grows exponentially. Social media logics largely rely on algorithms guiding the spread of given contents based on their achieved engagement, increasing in turn the potential of attracting even more engagement for successful articles (Thorson et al., 2019). Although scientific studies so far addressed the question of what affects user engagement on social media, they strongly focused on the effects of topic novelty, forms of presentation and linguistic emotionality (Berger & Milkman, 2012; Rudat et al., 2014). Subsequently, little is known about the effects of the presented content itself on user engagement. Nevertheless, the relationship between contents, and more specifically their quality, and engagement is in as far of crucial social relevance, as news media get increasingly consumed through social media, exponentiated by high user engagement, as well as the use of engagement

measures as economic benchmark for news production. From a democratic theoretical perspective on quality, emphasizing the relevance of high-quality news coverage for the proper functioning of democratic societies, investigating the relationship between content quality and engagement finally allows for further insights into the effects of the changed news consumption and production environment on social media on the role and performance of media in democratic societies. Given the discussed research gap, this paper addresses the question of *whether media quality – in a democratic understanding – has an impact on user engagement on Facebook and if there are differences between media types.* This research perspective stands in direct connection to societal integration, as fostered by the public sphere. The quality of the information offered within it impacts this performance. In this sense, the unproportioned spread of qualitatively minor contents, as measured in this paper as societally less relevant information, can hinder this integrative function of the public sphere and by extension, media.

Theoretical background and hypotheses

Media quality and democracy

Evaluating quality includes inevitably to set normative standards. In assessing the quality of journalistic contents, three theoretical perspectives have been established: the market- / audience-oriented, the functional-systemic, and the normative-democratic perspective (Arnold, 2008). The three perspectives have in common that they perceive media offers as crucial in order to constitute a public sphere in which citizens, or consumers, can obtain information. Nevertheless, expectations towards the production process and nature of this information vary. From a market- / audience-oriented perspective, information should mainly be useful and useable to the audience and represent an attractive product in which consumers are willing to invest (Siegert, 2004). From a functional-systemic perspective, high quality journalistic content fulfills the functional standards such as diversity, relevance and independence, but the theoretic strand also includes aspects of availability and understandability to the audience (Arnold, 2008). Finally, it is the democratic perspective that conceptualizes media offers as crucial element for the persistence of democratic societies. In contrast to the other perspectives, this normative perspective relates media to their institutional and societal environment,

going beyond their function in providing a communicative infrastructure necessary for a public arena, and understanding the audience primarily as citizens. From this perspective, it is through the fullfillment of democratic quality standards by the media that a public sphere constitutes itself, a public arena in which information is not only available but also an indispensable contribution to the persistence of democratic values in in the entire society. Habermas (2015 [1990]) outlines the four dimensions of a democratic public sphere, able to fulfill the outlined aspects, as relevance, openness, universality, and reason. From this perspective, the public sphere is only established as such if the prerequisites for a public discourse are fulfilled. It must address issues relevant to citizens, to be open to all citizens, to allow for all reasoned opinions, and to privilege the convincing voice of the better argument.

User engagement and its drivers

The advent of online news and social media brought a new measurement unit for the economic success of journalistic contents in getting audiences' attention and availability for interaction: user engagement. In the case of *Facebook*, the social platform this analysis focuses on, this term sums up the various forms of user activities based on a given post: shares (the re-posting of contents in order to make them available to the respective users' network), likes and other more recently introduced emotional reactions (mini-comments via klicks on a button), as well as comments (openly formulated as reaction to given posts or other users' comments). Other than classic circulation numbers of news outlets, this new measure allowed for the evaluation of the success of individual news articles crucial for online news outlets in order to attract user's attention and to subsequently spread contents beyond their own account. Journalistic practice quickly adapted to the new measure, tailoring contents in order to attract high user engagement and allow for subsequent web traffic on the outlet's news site (Cherubini & Nielsen, 2017). But what attracts user engagement? Empirical studies found that user engagement is positively influenced by emotional factors such as excitement, controversy, and surprise (Berger, 2011; Berger & Milkman, 2012; Rudat et al., 2014), as well as by visual aspects of the shared content (Berger 2011). At the same time, the overall news value of the content was found to have a positive effect (Rudat et al., 2014), and external factors such as crises, threats, and the overall activity of the political system, such as elections or parliamentary sessions,

led to higher engagement numbers (Boczkowski & Mitchelstein, 2012). The outlined empirical research gives little indication on the effects of quality on engagement based on the discussed democratic theoretical perspective, nevertheless allowing for the formulation of hypotheses. The discussed influencing factors leading to high engagement can be understood as indicative of lesser democratic media quality, especially with emotionality leading to less objective and relevant news coverage from a societal macro-perspective. We thus assume that – in general – low quality has a positive impact on user engagement (H1):

H1: The lower the democratic media quality of an article, the higher the achieved user engagement on Facebook.

At the same time, the discussed literature shows that engagement is audience dependent and news production will adapt to its expectations in order to achieve higher engagement numbers. We thus assume that outlets belonging to different media types (i.e. quality newspapers, tabloids, free newspapers, online pure newspapers) will follow different strategies in achieving high engagement, based on the different characteristics of their respective audiences. Hypothesis one is thus not expected to generally hold, we rather assume that at least some news media are in the position to attain user engagement based on articles with high democratic quality (H2):

H2: Depending on the media type, news articles with high democratic quality news can achieve high user engagement on Facebook.

In order to gain a deeper understanding of quality as engagement driver, we include a test of the concept's dimensions in our analysis. Based on the outlined theoretical approach (Habermas 2015 [1990]), overall media quality was disaggregated into three dimensions. *Societal relevance* mirrors the requirement of a public discourse relevant to citizens in the exercise of their democratic rights and duties. This dimension distinguishes between news coverage focusing on societally relevant topics, societal procedures and events on a macro-level in contrast to personalized and event-based news coverage. *Contextualization* in turn validates the informative quality of the news coverage, opposing in depth background news coverage transmitting reasonable arguments and event-based news coverage with little explanatory or argumentative value. Finally, the dimension *Professionalism* reflects the rationality and

transparency of information and argumentation presented. It assesses whether news coverage seeks to convince the audience based on rationally accessible arguments as opposed to emotional persuasion. In accordance, this dimension also includes the transparency of sources. These dimensions are expected to have an impact on user engagement. Based on audience expectations, we assume that contents in accordance with the brand will achieve higher engagement numbers. Accordingly, audiences of quality media titles for instance will expect a better performance of their newspaper in each dimension leading to higher engagement numbers for articles fulfilling these expectations:

H2.1 Relevance: Quality media get higher numbers of user engagement the higher the measured relevance of an article.

H2.2 Contextualization: Quality media reach higher user engagement the higher the contextualization of an article.

H2.3 Professionalism: The more professional the style of an article (in terms of objectivity and source transparency) the higher the user engagement on quality media articles.

Methods

Case selection, data and sample

This study analyses the assumed correlations for the Swiss case. Switzerland disposes over a diverse media landscape, allowing for a distinction of the following media types: public broadcasting, quality legacy media, online only offers, tabloids, as well as free newspapers (so called "commuter press" targeting the audience in public transports) of which the majority maintain social media profiles. Switzerland thus represents a case where the use of professional media outlets on social media is common and clearly distinguishable media types exist. The data used stems from the Swiss Research Institute for the Public Sphere and Society *fög* which undertake media quality research since 2010 accompanied by yearly reports and regular publications. We conducted a secondary analysis of a total of 1.945 news articles for the purposes of this publication. This sample consists of articles published on *Facebook* by five Swiss news media during two randomly selected artificial weeks in 2016. The quality of part of the news articles were manually coded in the course of the project "Yearbook

Quality of the Media" (fög - Forschungsinstitut Öffentlichkeit und Gesellschaft, 2019). In order to saturate the sample for this specific analysis, 546 articles were additionally assessed based on the same codebook. The sample includes quality legacy media (*Neue Zürcher Zeitung (NZZ)*, n = 329, *Tages-Anzeiger,* n = 337), tabloids (*Blick,* n = 306), and the free newspaper *20 Minuten* (n = 306), public broadcaster (*SRF*, n = 345), as well as one online pure newspaper (*watson.ch,* n = 322). The open source app *Netvizz* was used to download the *Facebook* posts and further information on the published news articles (post IDs, publishing date etc.) as well as user engagement, i.e. number of *Facebook reactions* ("love", "haha", "wow", "sad", "angry" including *likes*), *shares*, and *comments*.

Measures

The predicting variable *Quality* was operationalized by the outlined three dimensions relating to the democratic perspective of media quality: (1) Relevance, (2) Contextualization, (3) Professionalism.

Relevance was recorded as a computed index of its sub-dimensions *Topic Relevance* and *Actor relevance*. The quality score in this dimension is higher for articles who address societally relevant issues, for instance politics or economics, rather than human interest and sports (topic relevance). In line, the score increases if the actors are portrayed from the perspective of their societal role and relevance (macro- / meso-level), rather than their individual or personal role (actor relevance). The second dimension, *Contextualization*, relates to the informative depth of the article, i.e. whether additional information enables the reader to assess the societal relevance and to evaluate presented arguments. The dimension is represented by a computed index as well: The higher the score of the index, the higher the contextualization of an article. Dimension three, *Professionalism*, distinguishes between an argumentative style based on rational arguments rather than emotions. In addition, the transparency of sources was considered as well as the degree of journalistic contribution (articles written by a journalist vs. news agency). The index is higher the less emotional an article is written, if sources are transparent and if the articles demanded a high degree of journalistic contribution. The three indices led to the computation of an overall *Quality Score* for each media outlet covering a range of values between 1 and 10. The higher this total score the better the media quality.

The dependent variable *User Engagement* represents the sum of *reactions* (including *likes*), *comments* and *shares* of a published article. The counts were extracted directly using the app *Netvizz* (as mentioned before). In addition, an analysis of the sum of *likes*, *reactions*, *comments* and *shares* as separate outcome variables was performed in order to assess potential differences among these engagement types.

Results

Hypothesis 1 postulated that lower media quality goes hand in hand with higher user engagement on *Facebook*. For an overview, Table 1 shows the mean (*M*) of the overall *engagement*, as well as *likes*, *reactions*, *comments* and *shares* per medium, sorted by the computed quality score.?

The analyzed media outlets are ranked by their quality score, with the lowest quality score of 3.52 for *20 Minuten* and the highest score of 7.55 for *NZZ* (on a scale from 1 to 10). Overall, the two tabloids *20 Minuten* and *Blick* as well as the online outlet *Watson.ch* are – unsurprisingly – ranked the lowest in terms of the quality score. Though, concerning user engagement (*likes*, *reactions*, *comments*, *shares*), these media outlets receive the highest counts compared to the public service broadcaster *SRF* and the quality legacy media outlets *Tages-Anzeiger* and *NZZ*. Also, the community sizes are the highest for media outlets with lower quality scores. These descriptive data provide first indications that low media quality corresponds with high user engagement. To further test hypothesis H1 we conducted multiple regression models to find out whether the quality dimensions "topic relevance", "actor relevance", "contextualization" and "professionalism" influence user engagement. In addition, the dummy-coded media outlets (reference-variable: *SRF*) were integrated in the regression analyses (see Table 2). We performed five regression models to assess overall user engagement, the number of *likes*, *reactions*, *shares* and *comments* as outcome variables separately.?

Focusing on the quality dimensions, we can state that topic relevance (β = -0.07, p = 0.01) and professionalism (β = -0.07, p = 0.01) have a highly significant negative effect on user engagement ($F_{(9, 1935)}$ = 38.99, p = 0.00, n = 1945). The effects are slightly different regarding the other regression models with the number of *likes* ($F_{(9, 1935)}$ = 35.72, p = 0.00, n = 1945), *reactions* ($F_{(9, 1935)}$ = 39.30, p = 0.00, n = 1945), *shares* ($F_{(9, 1935)}$ = 16.20, p = 0.00, n = 1945)

and *comments* ($F_{(9, 1935)}$ = 16.88, p = 0.00, n = 1945) as outcome variables. Interestingly, topic relevance has a significant negative effect on all types of engagement except for the number of comments. Also, actor relevance only has a significant positive effect on the number of *shares* (β = 0.06, p = 0.02), meaning that articles are more likely to get shared when the actor orientation of an article includes a societal macro-perspective. Contextualization is negatively correlated with the number of *likes* (β = -0.06, p = 0.01) and *reactions* in general (β = -0.05, p = 0.03). Professionalism has a significant negative effect on all outcome variables except for the number of likes. The effect of the media outlets on our outcome variables intensifies our assumption that low media quality goes hand in hand with high user engagement. The probability for high user engagement (overall, *likes*, *reactions*, *shares*, *comments*) is higher for articles of the tabloid *20 Minuten* (e.g. β = 0.33, p = 0.00 with "overall engagement" as outcome variable) in comparison to the reference variable *SRF*. Also, the tabloid *Blick* has a significant positive effect on user engagement (β = 0.06, p = 0.05) and on the number of comments (β = 0.09, p = 0.00). The online-pure media outlet *Watson.ch* also correlates positively with the number of comments (β = 0.07, p = 0.02). Hypothesis H1 can thus be accepted.

We analyzed the different media outlets in more detail, as hypothesis H2 claims that some media may achieve high user engagement with qualitatively higher news articles, too. For this purpose, we divided the variable *Quality Score* in three ranges including approximately the same number of cases. Articles with a quality score up to 4.25 are labelled as "low quality articles" (n = 675), a score up to 6.55 means "medium quality articles" (n = 636). All articles above this value are labelled as "high quality articles" (n = 634). Also, engagement was categorized into five ranges ("very low" to "very high") depending on the maximum amount of user engagement per media outlet. This means that the number of likes varies in each range depending on the media outlet, as tabloids are in general more likely to achieve higher user engagement (having larger *Facebook*-communities at the same time). Our analyses confirm that the proportion of articles with high quality as well as high user engagement varies between the different media outlets: The proportion of high quality articles achieving high user engagement ranges between 1% and 5% in the case of the tabloids *20 Minuten* and *Blick,* as well as the online-pure media *Watson.ch.* In contrast, quality media outlets such as *Tages-Anzeiger* and *NZZ* achieve

high user engagement for 15% respectively 23% of their high-quality articles. This confirms our assumption that high media quality can attract high user engagement, depending on the media type.

Considering the three dimensions of media quality (relevance, contextualization, professionalism), we assessed the main drivers for user engagement depending on the media type. In hypothesis H2.1 we assumed that quality media outlets reach higher user engagement, the higher the relevance of an article. As shown in Table 3, the hypothesis cannot be confirmed as there are no significant effects on user engagement among high quality legacy media outlets *Tages-Anzeiger* ($r = 0.09$, $p = 0.11$, $n = 337$) and *NZZ* ($r = -0.01$, $p = 0.85$, $n = 329$). However, the relevance of low media quality articles is at least partially negatively correlated with user engagement: The lower the relevance of articles in the media outlets *Watson* ($r = -0.17$, $p = 0.00$, $n = 322$) and *Blick* ($r = -0.11$, $p = 0.05$, $n = 306$), the higher was the triggered user engagement on *Facebook*.

Hypothesis H2.2 claimed that quality media get more user engagement the higher the contextualization of an article. We can in part support this hypothesis, as for the media outlet with the highest quality score, *NZZ,* contextualization is significantly and positively correlated with user engagement ($r = 0.11$, $p = 0.04$, $n = 329$). In contrast, media outlets with a lower quality score show significant negative correlations, such as *20 Minuten* ($r = -0.23$, $p = 0.00$, $n = 306$), *Watson* ($r = -0.12$, $p = 0.03$, $n = 322$) and *SRF* ($r = -0.11$, $p = 0.04$, $n = 345$) (see Table 3).

Hypothesis H2.3 assumed that user engagement for articles of quality media articles is higher the higher its level professionalism. This hypothesis cannot be supported as there are no significant correlations except for the media outlet *20 Minuten*: the less professional an article of *20 Minuten* the higher the user engagement ($r = -0.14$, $p = 0.01$, $n = 306$) (see Table 3).

The effects of our variables in general appear to be small, as well as the explained variance of the models. We consider the presented results nevertheless as important. Explaining engagement on Social Media includes a broad array of factors, which are not only based on the analyzed media contents but also present psychological and social aspects. Media quality is thus in this context only one of many factors, yet a relevant one.

Discussion

Our study found that, indeed, low media quality from a democratic perspective generates less user engagement on *Facebook* than higher quality contents. The analysis also showed that especially contents with high professionalism and topic relevance are less likely to yield user engagement. Yet, high quality can achieve high engagement numbers in the case of legacy media. In this context, especially contents with providing high levels of contextualization achieve high user engagement numbers. Given this specific brand dependency, content meeting the audience's expectations will thus get much engagement in return independently of their quality. Nevertheless, the analysis showed that *Facebook* is clearly a platform driven by emotions, which in turn comes to the profit of tabloids inclined to emotionalization and scandalization in attracting the highly valued user engagement.

Given this result, the discussed increasing relevance of social media in general and specifically for the consumption of professional news may foster insufficient supply of democratically relevant information especially to younger cohorts. This specific undersupply of societally relevant information may in turn lead to their potential lack of participation in important societal debates.

Consequently, younger cohorts as well as users focused on Social Media channels may result to be less integrated into society in general, and into political decision-making processes in particulat. Moreover, an increased circulation and consumption of qualitatively limited contents may also contribute to the development of fragmented public spheres. this aspect should especially be considered for future research in this field.

Our study has the limitation not to include the audience side. The normative-democratic perspective on quality does exclude this aspect, nevertheless, it is likely that socio-demographic aspects play a complementary role as influencing factors for a given, media type specific, engagement.

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Table 1 **Mean of Engagement per medium**

	Quality Score	Engage- ment *(M)*	Likes *(M)*	Reactions *(M)*	Comments *(M)*	Shares *(M)*	Community size[1]	Engagement rate[2]
20 Minuten	3.52	532.39	310.43	396.32	75.27	60.80	514.214	1.035
Watson.ch	3.62	168.46	99.96	117.23	35.20	16.02	157.688	1.068
Blick	4.42	190.51	106.73	130.44	35.85	24.21	249.805	0.763
SRF	6.00	88.39	50.37	64.31	10.81	13.26	69.711	1.268
Tages-Anzeiger	6.44	53.84	27.57	35.40	10.88	7.55	59.944	0.898
NZZ	7.55	91.45	48.40	56.80	19.05	15.60	196.321	0.466

[1]Community size = number of Facebook page likes (2018)

[2]Engagement rate = Engagement *(M)* divided by Community size

Table 2 **Results of Multiple Regression Analysis Predicting User Engagement**

Predictors	(Overall) Engagement		Likes		Reactions		Shares		Comments	
	ß	p	ß	p	ß	p	ß	p	ß	p
Topic Relevance	-0.07	**0.01**	-0.08	**0.00**	-0.08	**0.00**	-0.09	**0.00**	-0.00	0.98
Actor Relevance	0.01	0.62	0.00	0.99	0.01	0.84	0.06	**0.02**	-0.01	0.83
Contextualization	-0.04	0.09	-0.06	**0.01**	-0.05	**0.03**	-0.01	0.62	0.00	0.96
Professionalism	-0.07	**0.01**	-0.04	0.15	-0.06	**0.02**	-0.07	**0.02**	-0.08	**0.01**
20 Minuten[1]	0.33	**0.00**	0.31	**0.00**	0.32	**0.00**	0.21	**0.00**	0.26	**0.00**
Watson[1]	0.02	0.54	0.03	0.35	0.01	0.72	-0.03	0.38	0.07	**0.02**
Blick[1]	0.06	**0.05**	0.05	0.08	0.04	0.13	0.03	0.27	0.09	**0.00**
Tages-Anzeiger[1]	-0.02	0.38	-0.02	0.42	-0.03	0.35	-0.31	0.28	0.00	0.97
NZZ[1]	0.03	0.25	0.03	0.28	0.02	0.40	0.03	0.34	0.05	0.10
Adjusted R^2	0.15		0.14		0.16		0.07		0.07	
F	38.99 (9, 1935)		35.72 (9, 1935)		39.30 (9, 1935)		16.20 (9, 1935)		16.88 (9, 1935)	

n = 1945

[1] Reference: SRF

Table 3 **Pearson (r) correlations of the quality dimension "relevance", "contextualization" and "professionalism" with "user engagement" for the six different media outlets**

	user engagement					
	20 Minuten	Watson	Blick	SRF	Tages-Anzeiger	NZZ
relevance	-0.08	**-0.17***	**-0.11***	**-0.21***	0.09	-0.01
contextualization	**-0.23***	**-0.12***	-0.03	**-0.11***	0.01	**0.11***
professionalism	**-0.14***	-0.08	-0.03	-0.10	-0.84	-0.10
n	306	322	306	345	337	329

*p ≤ 0.05 **p ≤ 0.01 ***p ≤ 0.001