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Value Emergence in the Usage of Mobile News Alerts

Mobile news alerts have become an important means for news organizations to develop their relationship with growing mobile audiences. Yet, there is a lack of knowledge about the way audiences experience mobile news alerts and how newsrooms should measure the success of news alerts. This article presents an ethnographic study of the consumption of mobile news alerts. For analyzing the consumption, a value creation approach is introduced as an alternative model that does not address audiences solely as citizens that need information for public good, nor as market-driven entities. Instead, the focus is on understanding audiences as individual customers who create the value of news alerts while using the news services. Furthermore, this article reflects the results of a study of the alert sending practices of a regional newspaper. The findings indicate that while news media still tend to think of customers as a unified group of “readers”, the receivers of news alerts treat their mobile screens as an individual sphere whose information flow should match their personal context and needs. This article brings forth the need among news media for a broader understanding of the consumption of news alerts including developing co-creation activities with customers.

KEYWORDS mobile ethnography; mobile journalism; mobile news; news alert; news consumption; push notification; value creation

Introduction

While mobile consumption of news has increased substantially during the last years, many news media are exploring new ways of capturing readers' attention in mobile devices. Sending news alerts, i.e. push notifications, to mobile devices' lock screens has turned out to be a prominent way for many publishers to create a direct interaction with their audiences (Newman 2016; 2018). However, there is still not much knowledge of how news alerts sent by newsrooms are consumed and experienced by audiences (Brown 2017). This article sheds light on the consumption of news alerts by presenting the results of a mobile ethnography study.

Furthermore, this article seeks to provide new insights into understanding audiences of mobile news as customers. Traditionally, the societal role of journalism as an advocator of democracy has directed professionals and academics to emphasize audiences as entities of "citizens" that need information for public good (Picard 2010, 16-21). On the other hand, the possibility of collecting real-time audience data in digital platforms has led to the creation of "quantified audiences" (Anderson 2011; Zamith 2018) derived from market needs. The article states that these are not sufficient conceptions of audiences in the contemporary digitalized and individual media environment. In addition, there is a need to understand audiences as "collections of individuals" with diversified needs and wants (Picard 2010, 18).

In order to understand audiences both as citizens and individual customers, this article adapts a value creation approach for analyzing the consumption of news alerts. This study implements Service Logic (SL) that places customers of services as value creators, whereas service providers can only create potential value for customers (Grönroos and Voima 2013). With this approach, business logic and journalism are blended. The research question is: how does value emerge in the usage of mobile phone news alerts?

To answer this, this study analyzes how readers use and experience news alerts. The reader analysis is based on a mobile ethnography carried out in cooperation with a Finnish regional newspaper that was in the process of developing its mobile news alerts service. In addition, the results of the ethnography are reflected against a diary kept by news editors of the respective newspaper who discuss the grounds for sending news alerts.

Mobile news alerts and quantified consumption of news

Mobile news alerts are messages that are sent directly to users' mobile devices by service providers of mobile news applications. The messages pop up both on the lock screen and home screen depending on whether the device is in use. Since alerts can captivate users' attention even when the application is not in use, they are considered to be an effective tool for increasing user engagement. During the last years, news organizations have started to value news alerts as a key channel for building direct relationships with their audiences on their mobile platforms and, therefore, as a tool to decrease the role of third parties such as Facebook as news mediators (Newman 2016, 7). This development is related to the changing business model of many media companies, where paying customers and quality content are prioritized over seeking large audiences for advertisers in digital platforms (Newman 2018; Nelson and Lei 2018). According to a recent report by Reuters Institute, the growth of news consumption via social media or content aggregators has stopped in many countries, while at the same time news applications continue to gain importance (Newman 2018, 9). Therefore, investments in direct customer relationships on mobile platforms seem to resonate with the development of consumer behavior in relation to digital news.

Mobile consumption of news has been studied especially in relation to other platforms of news consumption (Westlund 2015; Nelson 2019). Mobile has not replaced the other platforms. However, the opportunity to read news wherever the user is with his/her mobile device has generated new forms of consumption. According to previous research news are read more times per day with mobile devices, but the sessions seem to be shorter than on other platforms (Molyneux 2018). Research on mobile news alerts consumption is still scarce. Audience surveys indicate that when news alerts are enabled, the frequency and duration of visits in news applications increases. In general, news audiences find news alerts a valuable service. However, concerns remain in reference to irrelevant content being pushed to their personal devices and wish for better-targeted messages. (Stroud, Peacock, and Curry 2016; Newman 2016.)

A study among U.S. news outlets (Brown 2017) shows that news providers regard mobile news alerts as a vital way to enhance brand loyalty. Yet, there are many challenges related to this. For instance, sending alerts about breaking news seems to be less critical than before and the ability to send messages that differ from competitors' messages has become more critical. Mobile alerts should also be understood as a unique form of

storytelling. Firstly, mobile news alerts are messages received in a very individual sphere. Secondly, mobile news alerts can be followed without clicking the link to the news story in the mobile application. These characteristics bring forth a new challenge: news outlets do not yet have sufficient tools for understanding the individual customers of mobile news alerts and measuring the success of their messages.

Due to digitalization, media companies have gained a wide access to observe their audiences' behavior on their digital platforms (see Cherubini and Nielsen 2016). Yet, when audience analytics is applied to measure the usage of mobile news alerts, challenges emerge. When news alerts are considered as a channel to drive users to a mobile application, their success can be measured by their open rates, and after that, by existing metrics. However, when alerts are considered as independent messages on mobile screens, the tools are lacking: analytics provide incomplete information on how news alerts are seen and used on mobile screens. Therefore, qualitative research is needed to better understand how alerts are valued by readers. (Brown 2017, 6.)

News readers as citizens and customers

Traditionally in western market societies, journalism has been considered an independent field whose role is to act as an advocate of democracy and civil society by informing citizens for the public good (Broesma and Peters 2017; Ferrer-Conill and Tandoc Jr. 2018; Hanitzsch and Vos 2018). The societal role of journalism has also been emphasized in journalism research where journalists have been seen as gatekeepers (Carlson 2018, 407) who, acting on behalf of the audiences, make decisions about information that is needed to enable and motivate audiences to engage in functions of civil society. In the societal framework of journalism, there has not been much space for understanding audiences as consumers who may have their own needs regarding news (Hanusch and Tandoc Jr. 2017, 4).

However, the increased interaction between newsrooms and their audiences has also led to reconsiderations of how the audiences of journalism are imagined (Carlson 2018, 412). From this perspective, both the audiences of civil society and market-driven “quantified audiences” are constructions that are limited in their capability to tell how audiences experience the importance of news. According to Broersma and Peters (2017, 14), there is a need for a bottom-up approach that studies the daily practices of audiences

to understand the functions of journalism in people's lives. This is not to exclude the societal function, but to avoid using it as a normative filter. Picard (2010) too, criticizes the abstract concept of the audience, because it hinders news organizations from adapting to the changing business model based on paying customers. In the pursuit of value and revenues, "the audience" should be seen as individuals and as members of communities with differing wants and needs. (Picard 2010, 60.)

Customer as a value creator

On a general level, value creation refers to a process that increases the customer's well-being so that they become better off in some respect. In addition, Grönroos and Voima (2013) state that this process may include both construction and destruction phases. On a more elaborate level, Picard (2010, 79-81), for example, distinguishes three manifestations of value specifically in the context of news organizations and journalistic content. On the *functional level*, the benefits of consuming news and information emerge from information that helps consumers in their lives. On the *self-expressive level*, the benefits are manifested in the possibilities to identify oneself or converse with the news source, or to exercise choices about one's preferred content. On the *emotional level*, consumers benefit, for example, by being provided with escape, companionship, senses of belonging and community, pleasure, security, and reassurance. Picard (2010, 79) states that these manifestations of value are different compared to value created with other products. However, there are several comparable presentations of value in other contexts as well (Table 1). For example, in their seminal article, Sheth, Newman, and Gross (1991, 160) present five consumption values influencing consumer choice. Kuusela and Rintamäki (2002, 133) organize values in a hierarchy according to their substance versus intangibility, starting from an economic and functional level and ending up at an experiential level. Smith and Colgate (2007), in turn, define four corresponding types of value in a context of a broad array of offerings.

Table 1. Examples of value types

Sheth, Newman & Gross (1991)	Kuusela & Rintamäki (2002)	Smith & Colgate (2003)	Picard (2010)
	Economic	Cost / sacrifice	
Functional	Functional	Functional / instrumental	Functional
Social	Self-expressive Social	Symbolic / expressive	Self-expressive
Emotional	Experiential	Experiential / hedonic	Emotional
Conditional			
Epistemic			

In this article, we follow Picard’s three-fold categorization to organize the value types. Simply put, *functional value* refers to the information, which helps individuals to know about the world, save time or save effort. It refers also to the accurate technical performance of the news alert service. In the second category, we combine *self-expressive, social and conditional value* related to individuals’ self-perception and actions in various social settings and conditional meanings attached to the settings (who am I in this setting, what is my relationship to this setting). Besides serving functional value, information is closely related to the emotions of interest, which, in turn, play a significant role in the context of our study. Therefore, in the third category, we underline the epistemic value (as distinguished by Sheth, Newman, and Gross 1991, 162) related to emotional experiences of curiosity, novelty and desire for knowledge and combine these with other emotional experiences to capture the overall *emotional value*.

Traditional views assume that the provider creates value and controls value creation. Additionally, in many cases providers focus on attributes and thus on the base level of the hierarchy (e.g. Picard 2010, 69). Whereas early production-oriented perspectives emphasized value in exchange in value delivery, more recent perspectives, in particular those following the Service Logic, understand value as value-in-use, implying that the customer as the user is the value creator in a longitudinal and experiential process. In this article, value creation refers to customers’ creation of value-in-use, where both the newspaper’s and the readers’ (preferably customers’) actions can be categorized by corresponding spheres of provider and customer (Figure 1). Consequently, co-creation is a function of direct interaction in the joint sphere (Grönroos and Voima 2013). Following the Service Logic, in the *provider sphere*, the newspaper facilitates the value creation for customers (e.g. designs and sends news alerts), thereby

generating *potential value*. In the *joint sphere*, the customer directly interacts with the newspaper in a dialogical process, where the provider may influence the customer's value creation process and serve as a co-creator of *real value* (e.g. the customer adjusts the categories of the personalizable news alerts with a tool provided by the newspaper). In the *customer sphere*, the customer creates *real value* in use individually (e.g. reads the alert and satisfies her/his desire for information with minor effort, creating, i.a., functional and epistemic emotional value) or collectively (e.g. discusses the issue with a colleague, creating, i.a., conditional and social value).

Figure 1. Value creation spheres, Value Emergence in the Usage of Mobile News Alerts

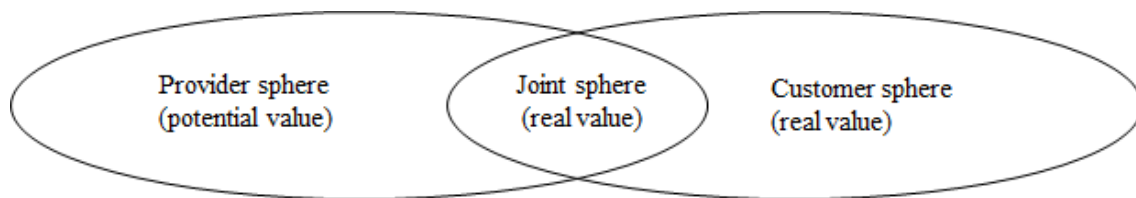


Figure 1. Value creation spheres (adapted from Grönroos and Voima 2013)

The Service Logic idea of the customer as the sole value creator challenges the previously mentioned societal role of journalism, where someone else makes decisions about the news service on the customers' behalf. Today, even newspapers have started to explore the idea of a personalized newspaper based on individual readers' interests, and an audience-driven approach for understanding the value of news should be further promoted (Lee and Chyi 2014, 817). It requires better interaction with the customers and participation that engages them to select, react, and conversate (Picard 2010, 97, 111). This, in turn, is a key element of turning the provider-originated potential value into real customer value.

Value emergence in the usage of mobile news alerts

In this article, the Service Logic -based value creation framework is adapted for understanding and describing the use of mobile news alerts. Following the model of Grönroos and Voima (2013), we scrutinize the use of mobile news alerts in the three spheres of value creation including the customer's sphere, the joint sphere, and the

provider's sphere. Consequently, we elaborate the value types presented earlier-in this article for analyzing how readers use mobile phone news alerts and how they respond to them. Furthermore, we reflect how the provider sphere activities of sending news alerts align with the customer sphere. Finally, the joint sphere is discussed based on the findings. Taking the different spheres of value creation into account, our research question is:

RQ: How does value emerge in the usage of mobile news alerts?

We will first shortly describe the research setting, proceed to the methods used, and thereafter present the results.

Research setting

The study was conducted in cooperation with a regional commercial daily newspaper that was in the process of developing an intelligent mobile news alerts service for their mobile application audience. Until recently, the newspaper's website had been the primary digital platform when compared to their mobile application. Therefore, the newsroom had previously mostly followed the user data of the website, where the analytics did not differentiate between paying subscribers and non-paying audiences. Now, however, they were shifting their focus more on reaching the existing and potential subscription-paying audiences in the digital platforms. This included the development of the existing mobile application that is only accessible to subscribers.

Like many news organizations, the regional newspaper considered news alerts as a prominent tool for strengthening their direct relationship with their audiences. Data analysis of the news alerts usage had indicated that activating mobile news alerts increased the subscribers' consumption of digital news via the mobile application. As their next step, the newspaper was planning on launching an intelligent mobile news alert service that included personalization. This qualitative study was conducted as a part of the development process in order to get a deeper insight into how subscribers may value and respond to news alerts. To gain an understanding of the "facilitator role" of the newsroom in the value creation process, the news editors were asked to keep a diary of their news alert posting habits at the same time as the user study was conducted.

Method

Traditionally, ethnographies are field studies where researchers personally participate in peoples' daily lives for the purposes of describing and interpreting their actions and their own understanding of the practices that they are involved in (Hackett and Schwarzenbach 2016; Geertz 1973). Contrary to the traditional face-to-face interaction with the participants, a mobile ethnography utilizes mobile devices for collecting data (Muskat, Muskat and Zehrer 2018; Stickdorn, Frischhut and Schmid 2014). In field studies, participants are requested to actively report their experiences with their devices. Therefore, mobile ethnography entails an auto-ethnographic approach encouraging the participants to express their inner states to allow for cognitive and emotional factors to be captured simultaneously (Bosio, Rainer and Stickdorn 2017, 118). When compared with interviews and surveys, the advantage of a mobile ethnography is that it allows the participants to report their experiences as they occur and where they occur (Muskat et. al. 2013).

This approach, mobile ethnography, was selected to achieve immediate, situational and multi-site information from the participants. The technical tool used in the study was Indemo (Indemo 2018). Its Instagram-like mobile application is easy to use and the dashboard side for researchers includes functions that help to explore, search and tag the material in different ways. In the study, the participants were asked to report any news alerts they received as well as to describe their consumption of other alert types, such as messaging alerts. Through this, we wanted to understand the consumption of news as part of the users' activity in a wider "informational ecology" (see Broesma and Peters 2017, 8).

The ethnography was conducted in February 2018. In selecting the participants, purposeful sampling strategy (Patton 2002, 230) was followed in order to gain meaningful, rich empirical data. The main criteria for selecting participants were that they either used or were interested in using news alerts, they were ready to actively report their usage during the study period and that they had the possibility to install the mobile ethnography application along with news applications in their smart phone. Altogether 23 participants reported their use of news alerts. Their age and gender divisions were as follows: Age 45-54: 7 females, 2 males; age 35-44: 3 females, 4 males; age 25-34 2 females, 1 male; and age 15-18 3 females, 1 male. Most of the adults over the age of 25 had a higher education and worked in expert positions, three of them were students and

one was a recently graduated jobseeker. All participants consumed digital news, but eight of them had not used news alerts before. Half of the participants were subscribers of the cooperating newspaper. The context of the studies was Finland, where news media is highly trusted and valued in comparison to many other countries (Newman 2018). During the ten-day-long study period, participants sent in altogether 604 responses, including texts, images, and videos. The researchers observed the participant activity through the dashboard.

At the same time, the news editors of the cooperating newspaper kept a diary of their “provider sphere” practices for sending the news alerts. The news editors’ report is reflected with the results of the mobile ethnography.

Results of the mobile ethnography

For the content analysis of the ethnographic data, we used a framework (Table 2) that encloses the three different value types, the nature of value, and the value creation spheres. The first category identifies the value types that we identified from the participants’ expressions. The category “Nature of value” differentiates whether the expressions indicate value creation, value destruction or participants’ ideas of future opportunities for value creation. The third category places value-indicating expressions into the three spheres of value creation. Although our participants’ inherent spheres are either the customer sphere or the co-creation sphere, we also observed their expressions directed towards the service providers (such as wishes) and placed them in the provider sphere category. As a result, there were 27 possible type/nature/sphere-occurrences, where value may emerge or be destroyed.

Table 2. Framework for the content analysis

Type of value	Nature of value <i>(Creation, destruction, opportunity)</i>	Provider sphere <i>(Potential value)</i>	Joint sphere <i>(Co-created value in direct interaction)</i>	Customer sphere <i>(Real value independently)</i>
Functional				
Self-expressive Social Conditional				
Emotional				

While analyzing the data, we discovered that single responses quite often included multiple value-indicating expressions. For instance, the participants oftentimes described both valuable and valueless news alerts within one response.

I clicked this news alert although it was too long and I saw only the first words of the alert on my screen. The news story was appropriate but the headline was silly. Why couldn't a hospital inform its target groups in Facebook? Female, 47

The excerpt demonstrates a response including expressions indicating both value creation and destruction. First, only partially visible message destroys value because the user hesitates whether to click the alert at all without knowing its relevance. After clicking it she finds the story appropriate (value creation) but the headline (“Why the hospital looks for the users of a potentially dangerous medicine via Facebook?”) deceptive (value destruction). In the excerpt, the participant refers to the quality of performance of the provider sphere, while evaluating her experience. The actual value creation or destruction occurs in the customer sphere. The response does not include any expression related to the joint sphere. A joint sphere expression may contain, for instance, the participant’s

reaction observed by the provider such as clicking thumbs up or down. A thumb button was not an existing feature during the study, however, it was an idea expressed by a participant. Therefore, it stands for an “opportunity” in the “nature of value” category.

Functional value emergence

As described earlier, functional level benefits appear in the information, which helps individuals to know about the world, save time, save effort or in the accurate technical performance of the news alert service. The value creation process of the participants was ambivalent. On the other hand, participants’ expressions indicate functional value creation, such as being informed about the world (Table 3).

I am so busy that I follow news mainly by reading news alerts, which I very seldom have time to click. This is why alerts are very useful: you can read them anywhere and they keep you updated. Female 33

At the same time, however, the participants reported an overwhelming flow of news alerts that turned to value destruction. This flow was partly a result of the participants receiving alerts from 2-4 news services in addition to their personal messaging applications, and partly because some news services had a habit of sending a lot of alerts (15-20 per day from a single service) to them. In the case of receiving too many news alerts, they lose significance as described by a participant:

News alerts lose their meaning and become annoying when almost every new story of the news service is alerted ... there should be a focus on main news/events. Male, 43

Table 3 lists value-indicating expressions in the three spheres. As described earlier, the provider sphere represents participants’ expressions related to the service provider.

Table 3. Functional value emergence of news alerts

	Provider sphere (respondents' point of view)	Joint sphere	Customer sphere
Value Creation	Informing about the world Right timing Sending - relevant alerts - self-contained alerts Grouping of alerts	Possibility to adjust - amount of alerts - interest fields	Knows about the world Gets reminded of when to take action Saves time Passes time Finds a service usable
Value Destruction	Sending - too many alerts - inadequate info - "old news" - trivialities Wrong timing Technical problems	Very limited possibilities to enable or disable alerts Adjustments do not provide good results Adjusting is technically complicated	Lacks time Wastes time Finds information inadequate Suffers from interruptions Prefers app/web/print Personal messaging is disturbed Finds it hard to focus due to information overload
Opportunity	Adjusting - timing - messages according to receiver's location Adding - AV features for attention management - reading history - reading analytics Automatic personalization	Possibility to - select timing - save individual alerts - get alerts straight from a website - prohibit unwanted topic fields - interactions e.g. thumbs up	More versatile consumption of news alerts including analysis of own reading habits

The participants' expressions support the assumption (see Brown 2017) that alerts should be self-contained messages. Receivers wanted to get articulate messages that allowed them to quickly assess the importance of the news piece and judge whether they needed to get more information about the topic. In other words, self-contained messages were valued because they saved time and kept the receiver informed. During the study, the opportunities influence on alerts were still limited. Since participants used several services at the same time, they started to compare them. Services that sent fewer alerts or provided the possibility to adjust service settings were considered more valuable.

Generally, the participants expressed an interest for more versatile usage of news alerts and proposed improvements to the services, such as automatic personalization, features for attention management, and interaction possibilities for receivers. However, many wishes were related to better targeting and decreasing the amount of the alerts. Alarms and traffic information were valued, as well as significant breaking news. However, the participants did not appreciate receiving several sequential alerts even about these topics.

Self-expressive, conditional, and social value emergence

In this category, we studied expressions related to the participants' self-perception, to the specific situation they were in while receiving the alerts or their sociocultural position, which also includes their role as citizens of society (Table 4). In general, the participants' sociocultural position and interests, e.g. their work and profession, studies, family situation, and hobbies were the main factors determining how relevant they found the news alerts.

I read the story immediately after getting the alert. The topic interests me professionally and could potentially concern the patients of my work organization. Female, 44

The situation of receiving alerts was also an important value creation or value destruction factor. For instance, receiving alerts while traveling often supported value creation, as the participants needed to pass the time somehow. Alerts that matched well with receivers' ongoing activities were also valued. On the other hand, participants also reported cases of receiving alerts at a wrong time and in wrong situations. One participant, for example, commented on receiving a message about a trial of a cruel crime while she was starting the weekend.

Why I would need to know this awful thing on a Friday evening?
Female, 46

Table 4. Self-expressive, conditional, and social value emergence of news alerts

	Provider sphere (respondents' point of view)	Joint sphere	Customer sphere
Value Creation	Sending alerts appropriate to receiver's situation and context (by change) Making receiver feel included in events and society Making people aware of important societal topics	Channel for expressing opinions Temporal selection of special topic fields related to receiver's context	Gets personal, social and contextual information Constructs the self Engages in situational and social activities Connects to society Can return to reading alerts
Value Destruction	Sending inappropriate alerts Excluding receiver from messages Patronizing the receiver		No personal connection Finds alert unsuitable for their situation Has something else to do in that situation Feels like an outsider Disagrees with journalistic solutions or content
Opportunity	Contextual personalization of alerts (place, time, mood) Adjusting the alerts with personal preferences	Forming a friendship with a news service	

Concerning social value, the expressions indicated value creation as citizens of society; this is aligned with the societal role of journalism discussed earlier. There were expressions that showed satisfaction or dissatisfaction towards public topics. For instance, a participant had followed a story about a hardworking and talented asylum seeker whose application was about to be rejected. She had been frustrated about the situation until she received an alert about a politician trying to bring about a positive asylum decision for the asylum seeker. The participant could not read the story in that situation, but the alert alone meant a lot to her by showing that somebody was trying to prevent a wrong decision from being made.

Self-expressive responses indicated, among other things, the receivers' news values. Breaking news and societally important news were valued; however, personal interests and sociocultural context created a subjective filter for evaluating which news were relevant on a personal mobile screen. In other words, individual receivers wanted and needed far fewer news alerts when compared to an abstract group of "citizens". Participants also evaluated journalistic solutions, e.g. by reporting marginal or tabloid contents not appropriate for their mobile screens. There were also expressions related to the impact that news have on people and reflections of how, e.g., especially violent events should be reported.

Alerts triggered social discussions, but at the same time, it was evident that mobile phones support individual use. For instance, a mother of small children preferred to read shocking news on her phone instead of watching the news on television to prevent her children from learning about the events. Nevertheless, alerts generated feelings of affinity with society and other readers. The study took place during the Winter Olympics and many participants actively followed the successes of national athletes. Yet, there were also feelings of exclusion, e.g., when participants who were uninterested in sports were bombarded with sport-related alerts.

News alerts competed with participants' personal messages from friends, school, work and social media. As noted by Aranda, Ali-Hasan, and Baig (2016) our data also indicates that the most important messages on the lock screen are the ones that come from family members, friends and work. News alerts only seldom achieved primary status. One suggested way to solve that was an idea of a news alert service that spoke to receivers like a friend.

Emotional value emergence

Emotional value emergence was identified from expressions that described either particularly epistemic or other emotional experiences (Table 5). Emotional expressions were related to all the value types in our framework that indicate emotions' inherent role in human actions. The negative emotions emerged especially in the cases where participants received too many alerts that they found to be irritating. Some participants also felt that they lost control of their private screens as the news services took over. On the other hand, positive emotions were more related to the news topics than to journalistic decisions. A common positive experience was an emotion of interest towards the topics discussed in alerts.

Table 5. Emotional value emergence of news alerts.

	Provider sphere (respondents' point of view)	Joint sphere	Customer sphere
Value Creation	Sending - alerts supporting emotional states - interesting, curiosity raising information Forming attention-capturing messages	Selection of specific topic field	Experiences positive emotions (interested, curious, pleased, touched, amused, grateful, glad, positively surprised) Constructs new knowledge Finds interesting stories Feels ambiguous emotions: terrified, sad, curious, and interested at once.
Value Destruction	Sending - mood spoiling alerts - uninteresting info - misleading alerts - too shocking alerts Creating audio/visual noise Taking possession of receiver's screen		Experiences negative emotions (irritated, indifferent, frustrated, betrayed, disappointed, depressed). Disagrees with - journalistic solutions - content
Opportunity	Sending niche alerts (narrow knowledge field) Learning reader's interests and sending alerts accordingly	Opportunity to filter according to emotional content	

The expressions indicating epistemic emotional value creation showed that the novelty and attractiveness of topics (e.g. their ability to evoke interest and curiosity) varied according to participants' individual experiences and preferences. Some participants liked “hard news” that very clearly bring forth the general importance of the topic. Some participants pointed out their need for “soft news”, especially during their leisure time. Although clickbait alerts, especially ones containing deceiving information, were condemned, interest- and curiosity-evoking contents were nevertheless valued:

The line between smart and irritating clickbait content is flickering. When clicking [of a link] results in a positive “aha” experience, the feeling is good. The opposite occurs when you find the content be nonsense and feel cheated. Male, 42

Participants reported mixed emotions especially in the context of shocking news (e.g. news related to violence or accidents). Although they felt sad or worried, many participants regarded the alerts as relevant information that they (and society) needed to know. However, there were also participants that bypassed these news and participants that did not want to receive awful news on their personal lock screens. The following

excerpt describes the mixed emotions caused by sequential updates about a school shooting and a murder received on the same day:

I noticed the news alerts starting to work as a kind of entertainment: continuous “this is what we know now” updates feel like you’re watching an action movie and waiting for the next twists. Is this what they are trying to achieve? I even feel a bit guilty while waiting to hear from new disasters and tragedies. Male, 27

Again, the participants wanted better-targeted services. In the joint sphere, participants valued the possibility to select interest fields and wished for automatic personalization based on users’ behavior. Filtering of emotional content was also suggested as a possible future functionality.

Participants’ reading practices and autoethnographic reflections

The participants’ personal practices of reading news alerts varied. Among participants that showed a lot of interest towards news alerts, there were both users who oftentimes read and reflected the news stories linked to the alerts, and users who merely read them as self-contained messages. Furthermore, there were participants who enabled alerts with a pinch of salt: they regulated their reading according to their other activities, e.g. by shifting the reading of alerts to later. Some participants thought that the news alerts are best when disabled. In this group, there were participants who preferred reading news directly from apps or web. Other participants in this group preferred to use mobile phones mainly for personal messaging. Finally, for some participants, receiving news alerts was a new thing. They were positively surprised over the experience of receiving news alerts among the dozens of personal and social media messages they were used to receiving.

Because of the autoethnography, the participants started to reflect on their consumption of news alerts and news, in consequence, the awareness of their individual wants related to news alerts was raised. A participant commented that her consumption of news alerts had changed significantly. At the beginning of the study, she had enabled news alerts of five applications, but at the end of the study, she enabled only two. Another outcome of the autoethnography was that the participants started to explore the settings of news application to adjust news alerts according to their personal interests. Services

providing these opportunities were valued more than one-size-fits-all solutions. Participants also expressed a desire for more versatile use of alerts than was technically possible.

Reflections of the provider sphere activities

The news editors of the regional newspaper kept a diary of their “provider sphere” practices during the same time as the mobile ethnography was conducted. In their diary, the news editors briefly described each news alert sent by answering these questions: 1) why was this topic worthy of being sent as a news alert, 2) how was the timing of the posting decided and 3) how was the content of the alert modified to catch audiences’ attention. During the eight reported days, the newspaper sent altogether 144 news alerts – an average of 18 news alerts per day. The alerts were sent between 7 a.m. and 11 p.m. The service did not have any personalization options at that time.

The main finding from the diary notes was that news alerts were tightly connected to the publishing practices of the website content. The alerts were usually sent after the news story had been published on the website and the alerts consisted of the story headlines. In the expressions of the news editors, both “audiences of civil society” and “quantified audiences” were more prominent than audiences as individuals with diversified needs. The majority of alerts informed receivers about local and regional decision-making and events. The potential value-indicating expressions in which the news editors brought forth the citizens’ information needs demonstrate a high commitment to the societal role of journalism. The “quantified audience” was observable e.g. in the expressions that indicated an alert was sent because the story had been successful on the website.

The readers of news alerts were treated as a unified group of “readers” who were expected to be interested in the topics of the news alerts. Mentions referring to specific target groups were rare, as were references to specific times or situations (an example of these kinds of expressions was “a workplace talking point”). When the expressions of the news editors are compared to the participants’ expressions related to the provider sphere, there is a mismatch especially on the functional level. When the provider created potential value for all the readers at the same time, the value creation in-use was an individualistic experience. Hence, there is a collision between the different interpretations of the nature

of the medium: for the newsroom, the context was mass media whereas the participants were using personal media.

Discussion

All three value types presented in the framework were found from the participants' expressions. Functional value creation occurred in a process where customers felt they were being informed about the world. Self-expressive, conditional, and social value creation included processes such as self-reflection through the contents of the news alerts and achieving knowledge related to professional or personal interests. News alerts also triggered social interaction and societal participation among participants. Emotional value creation turned out to occur jointly with all the value creation types as an inherent characteristic of human action. While e.g. indicating valuable news alerts, the participants often expressed emotions of interest towards them. This kind of epistemic emotional value creation was related to novelty and attractiveness of topics and varied according to participants' individual experiences and preferences.

Value destruction was related particularly to the functional type of value and failures in the provider sphere. According to the findings, the participants oftentimes regarded news alerts as needless and felt that the amount of news alerts was overwhelming. They thought of their phone screens as a personal sphere that they should be able to control. Therefore, the information stream pushed from news services was seen as much as intrusive. Furthermore, functional value destruction was connected to emotional value destruction in the form of irritation. Disagreement over journalistic solutions was the more common reason for value destruction compared to the topics the alerts covered. However, e.g. alerts of shocking news raised ambivalent emotions among the participants.

The study was conducted in a country where news media is highly trusted. Although **the** participants expected news alerts to be personally relevant this did not mean dumbing-down of the societal role of news. On the contrary, many participants evaluated the relevance, trustworthiness and quality of news alerts and stories behind them in a manner that is aligned with good journalistic practice. For instance, deceptive news alerts and alerts chasing clicks were found annoying. The participants wanted to be informed

about what is happening in the world and society. They valued especially significance and importance as crucial attributes of news alerts.

However, their experience did not always match with these attributes. They received a lot of messages whose content was not important enough to be personally alerted while many messages might function as content in the news publication. This is something that should be understood better by news media: informed individual citizens can manage well with far less information than “informed citizens” as a unified group. According to our data, listening to and also cooperation with audiences, who apparently are capable of valuing the relevance and importance of news, may have excellent potential to help the news media to regenerate its societal role in the personalised media environment.

At the time of the study, personalization and possibilities to manually adjust the user settings of news alerts were fairly limited. However, the future opportunities mentioned by the participants showed a willingness to use news alerts in a more versatile way. Participants voiced a wish for the automatized personalization of news alerts and for value-added services based on user behavior, such as a reading history function. Context awareness, i.e. time and location recognition, as well as recognition of the receiver’s personal interests, preferences and social position were sought after features.

The findings suggest that the joint sphere of value co-creation for both customers and providers is unexploited, with only very limited possibilities to adjust the news alerts’ quantity or topic fields. The participants showed an interest in more interactions in the joint sphere, such as giving a thumbs up for important alerts. One participant also had an idea of an alert service that could speak to the receiver like a friend. In any case, emotional experience management should also be taken into account when developing news alerts services.

During the ethnography, the participants started to reflect on their consumption of news alerts and news. This commonly resulted in a raised awareness of one’s individual wants related to news alerts and changes in one’s own behavior. Providers should acknowledge that people are not passive receivers, a static target, but active information processors and learners with multifold individual preferences. Thus, especially in the joint sphere, providers should attempt to interactively find ways to learn themselves and to teach consumers to act in a reciprocally beneficial manner in order to enhance value

creation. Otherwise, the negative extreme is that customers will learn to disable all alerts due to an overflow of content that is insignificant to them personally.

Picard (2010), for example, has emphasized holding value creation front and center when discussing the future of news organizations. Our study also supports this view, adding the idea of the three spheres and of the customer as the sole value creator in a longitudinal, interactive, and experiential processes. This provides a logic for reassessing the whole relationship between news providers and readers. Acknowledging that providers do not create customer value (in use) per se, is fertile ground for developing more customer-oriented service solutions. There is no need to customize and even automatize everything for customers a priori, based e.g. on quantitative behavioral data because in the joint sphere, the customers could do a part of the customization themselves. Customers expect a certain level of effortlessness in how their preferences are learned, but they should nevertheless be invited into the joint sphere to enhance that process and to improve their possibilities to make individual user adjustments.

Limitations of the study

The study was conducted with a limited number of participants in a Nordic country where news media are rather highly valued, and the results may not be applicable within countries with a different news consumer culture. The study indicated merely individual use of news alerts. Due to the research approach and the limited number of participants, empirical generalizations concerning the role of e.g. sociodemographic variables were not possible, nor were they aimed at. Conducting the same study with new audiences would provide, on one hand, deeper insight to the use of news alerts, and on the other hand, more information of the relationship between the variables in question. In addition, it must be noted that mobile push technologies are under constant development and this study reveals the usage of mobile alerts in a certain time and stage of technical development.

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