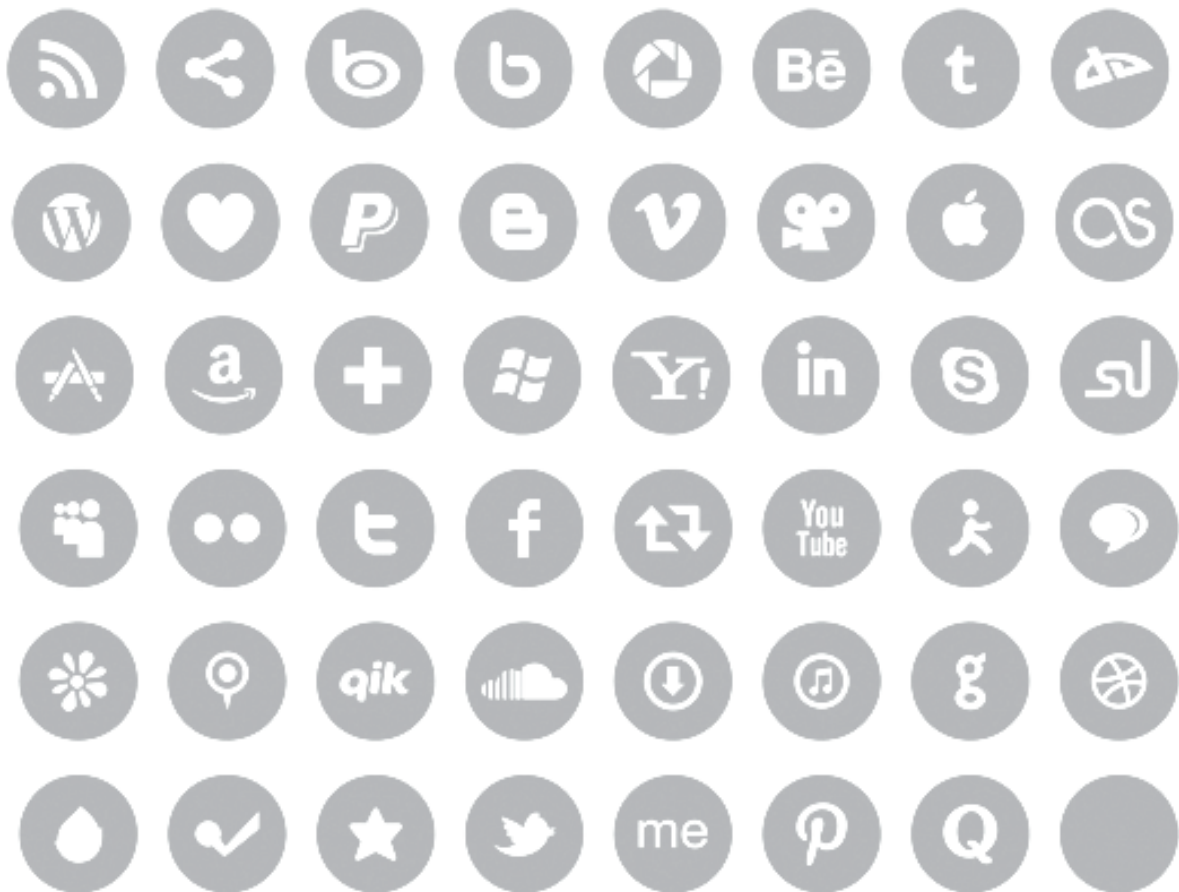


# IS SHARING CARING?

The value of social media interaction patterns for online news services.



The value of social media interaction patterns for online news services.

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## Abstract

### *Purpose*

The Internet is becoming an integral part of journalism. News organizations employ websites and digital editions of newspapers to reach their audience on the World Wide Web. With the rise of social media, news organizations felt that they had to do something and have started to implement social media into their websites and communications. But in what ways are social media used? How, and with which objectives do news organizations employ social media? And in with which objectives do users employ social media? This study aims to develop social media news interaction patterns, and to determine the value of patterns for both news organizations and users.

### *Method*

The first phase of this study consists of a literature review, describing the theoretical background of key concepts in the study such as interactivity, social media and the pattern approach. This results in a conceptual model, which will be tested using a two-step approach. In the first step, a preliminary study is conducted to test the practical validity of patterns extracted from the literature. The second step consists of two separate studies. Study one uses multiple case studies to examine the value of social media news interaction patterns for publishers. Study two uses an online questionnaire to examine the value of social media news interaction patterns for users.

### *Results and conclusions*

The results from the case studies show that social media news interaction patterns can be observed in the practical setting of an online news site. A selection of interaction patterns was measurable using the data available for the case studies. Measured interaction patterns were associated with the following organizational objectives: (1) increase reach, (2) increase loyalty, (3) facilitate interaction, (4) co-creation, and (5) increase findability.

Results from the online questionnaires show that user objectives for most social media news interaction patterns can be explained using nuanced traditional uses and gratifications dimensions. Combining results from the case studies with results of the online questionnaires into a single model, the value of social media news interaction patterns is becomes visible.

## Chapter 1. Introduction

### 1.1 Study motivation

News media have been around for centuries and, although technological breakthroughs like radio and television have had an impact on the way news is being spread and consumed, news media have typically been mass media since the press was invented. This changed when news media went online, in the sense that in an online environment a reader is more able to 'talk back' than in a mass media environment, for instance when watching the news on TV or reading a traditional newspaper.

From the time traditional newspapers introduced the first of their online counterparts in the late 1980's / early 1990's, the number of print newspapers that offer their news online has grown explosively (Boczkowski, 1999; Gill, 2005). Today, virtually every print newspaper offers its news digitally. A recent study shows that half of the male and a third of the female Dutch population makes use of an online news source on a daily basis (Van Deursen & Van Dijk, 2010). In the mean time, traditional paper newspapers are showing a slow but steady decline in the number of printed editions (Bakker & Scholten, 2009). The decline in printed newspaper editions is caused partly by the fact that younger generations tend to read less printed newspapers (Stimuleringsfonds voor de pers, 2007).

In an attempt to reach a bigger, younger audience newspaper publishers have launched new products and services (e.g. tabloids, supplements, magazines and digital services). Especially the digital services offered by newspapers on different types of new media serve the purpose of establishing a renewed affiliation with the younger generations. Digital services that are being offered by most Dutch national print newspapers include one or several websites, a digital edition, and an application for mobile devices. Integration between digital news services and social media such as Twitter and Facebook is becoming increasingly common. However, even though the integration of social media in online news services seems to have been fully embraced by the news industry, little research has focussed on the relation between organizational and user objectives for using social media in online news.

This study focuses on the relation between organizational and user objectives for using social media in online news. However, the term *social media* is a rather broad one, and many social media applications can be distinguished (Kaplan & Haenlein, 2010). All of these applications provide a selection of social media functionalities to their users, and this selection may vary from application to application (Kietzmann, 2011). In this study, social media functionalities play a central role. Based on social media functionalities a number of social media news interaction patterns, which describe various ways social media functionalities can be used, are developed.

The objective of this study is to examine the value of these social media news interaction patterns. Can they be observed and measured? And if so, what do these measures tell us about social media use and associated objectives?

### **Social relevance**

Social media have become a hot topic in business lately. More and more organizations come to realize how important social media are in today's online world, and discover how social media can help them to for instance strengthen customer relations, build thought leadership, and maximize reach. The current challenges marketers face are how to develop a social media strategy, how to measure social media objectives and how to develop a model for measuring social media return on investment (ROI).

This study aims to function as an initial step in the development of social media patterns, which can be used to develop or evaluate a social media strategy and provide measures to monitor social media performance. Having reliable measures is important because organizations need to make strategic decisions based on something more than a gut feeling. The way social media news interaction patterns are measured in this study can furthermore provide very usable insights into how social media objectives can be measured in practice, and may function as a stepping stone towards the development of robust social media ROI measures. This is especially important because organizations want to be able to tell what the effect of using social media is, and whether the time and money spent on it is worth it.

### **Scientific relevance**

Like in business, social media are a hot topic in social science, too, and much scientific research is conducted in this field. However, most studies focus on social media applications such as Facebook, Twitter and Youtube. In this study, the aim is to move away from social media application thinking and to introduce social media pattern thinking. This way, we hope to not only gain insight into the uses of social media functionalities independent from applications, but also to produce results which hold their practical validity for a longer period of time. This is especially important because development in social media takes place at a rapid pace. Applications are constantly changing and evolving, and new social media applications emerge, while others are abandoned and disappear. Their functionalities, however, largely tend to stay constant and outlive such changes.

The scientific relevance of the current study thus becomes twofold. First, by focussing on social media functionalities rather than social media applications, the current study potentially holds its practical validity for a longer period of time. Secondly, research results can be applicable to a variety of social media applications, as most applications share a number of functionalities, although the emphasis may vary from application to application (Kietzmann, 2011).



## 1.2 Study focus

Over the years, social media have been widely studied in various contexts and using a variety of approaches. Most scientific research has focussed on social media in general (Constantinides et al, 2008; Kaplan & Haenlein, 2010), specific types of social media (e.g. social network sites) (Boyd & Ellison, 2008; Barker, 2009; Rethlefsen, 2007), or specific social media applications (Chen, 2011; Larosa et al, 2012; Hanson & Haradakis, 2008; Preece et al, 2004; Tsagkias et al, 2011). In this study, however, the focus is on social media functionalities that can be found across social media applications. Although some scholars have emphasized the importance of such an approach when thinking about and researching social media and social media strategy (Li & Bernoff, 2011; Kietzmann 2011), it is a fairly new approach that hasn't been applied in many studies yet. Therefore, this study focuses on social media functionalities, rather than social media applications or specific types of social media. Learning on work by Alexander et al (1977), the social media functionalities are translated to social media interaction patterns. Social media (interaction) patterns are a new concept in social sciences. Therefore, the first objective in this study is to describe the concept of social media patterns and to develop an initial set of patterns. Then, the value the patterns have for online news publishers and users are studied.

In respect to the practical relevance of this study the value patterns have for online news publishers is measured using key performance indicators (KPIs), which are of a quantitative nature. Some KPIs are combined and translated into *ratios*, so that data can be compared more easily across different cases or over time. KPIs and ratios are selected and constructed in such a way that news organizations should be able to adopt the measures for their own benchmarks and social media performance monitoring.

Because the social media pattern approach is a new approach to social media, ideally the results from this study would be general. However, studying social media patterns requires selecting a specific context. In this study the context of online news was selected. Research results from this study will thus be hard to project on other contexts (e.g. marketing, education etc.), although the results may function as a point of departure to examine social media patterns in different contexts. Research results in the current study are based on a limited amount of data, participants and respondents, so the current study should be viewed as an exploratory study.

### 1.3 Research questions and sub questions

With the rise of social media over the last decade it has become one of the most prominent means of online communication nowadays. Hundreds of millions of people are participating in social media by connecting with each other, expressing themselves, and creating and sharing content. Businesses are active on social media, too. Recently, scholars have emphasized the importance of a functionality-centred approach when thinking about and researching social media and social media strategy, rather than an application-centred approach (Li & Bernoff, 2011; Kietzmann 2011). Therefore, this study examines social media functionalities, rather than social media applications or specific types of social media. This study focuses on (1) the development of social media patterns, and (2) determining the value patterns have for online news publishers and users. The main research question can thus be formulated as follows:

*What is the value of social media news interaction patterns?*

In order to come to an answer on the main research question, six sub questions were formulated. These sub questions form the basis of the theoretical framework and a two-step research approach. The theoretical framework in chapter 2 aims to answer the first three sub questions:

- 1) *What is social media?*
- 2) *What is the pattern approach?*
- 3) *What are social media patterns?*

Based on outcomes of the theoretical framework, a conceptual model is developed. The validity of this model is examined through interviews with online news professionals, described in chapter 3. The online interviews aim to answer the fourth sub question:

- 4) *Which social media news interaction patterns can be distinguished?*

In the second step of the study, the value of the social media news interaction patterns distinguished in chapter 3 is examined. The value for publishers and users is studied in chapter 4. This chapter aims to answer the fifth and sixth sub questions:

- 5) *What is the value of social media news interaction patterns for publishers?*
- 6) *What is the value of social media news interaction patterns for users?*

## Chapter 2. Theoretical framework

In this chapter the theoretical foundations for the study are explicated. Theories and definitions forming the theoretical foundations function as a means to answer the research question and sub questions, as well as a way to construct a solid basis for the study itself. The objective of the theoretical framework is to develop a descriptive model for *social media news interaction patterns*, which will be tested in chapters 3 and 4. In this model there are four elements playing a central role: (1) the online news context in which social media patterns are studied, (2) organizational objectives for using social media in this context, (3) user objectives for using social media in this context, and (4) interactions through social media which enable the organization and user to meet their objectives.

In the next paragraph the concept of social media will be defined from multiple points of view, and explored further through the concepts of social presence and media richness, as well as self presentation and self-disclosure. The second paragraph focuses on the pattern approach. Here the pattern concept will be explicated, and pattern structure and development will receive attention. The third paragraph focuses on social media patterns. The concept of social media pattern will be defined, and central elements such as context, objectives, interaction, and applications will be described. To conclude this chapter, based on the theoretical framework a set of social media news interaction patterns and a descriptive model for social media news interaction patterns will be developed.

### 2.1 Social media

This paragraph is built around the concept of social media. First, a brief history of social media will be given, and the related concepts of *web 2.0* and *user generated content (UGC)* will be defined, in order to come to a definition of social media from multiple points of view. Then, the concept of social media will be explored further through the concepts of social presence and media richness, as well as self-presentation and self-disclosure. Based on these concepts and theories social media are divided into several social media categories and applications.

#### 2.1.1 Social media: a brief history

The term 'social media' was coined around the year 2003, when social network sites gained more and more popularity, although the first system that would classify as social media appeared as early as 1979 (Kaplan & Haenlein, 2010). Even though the concept of social media is a relatively new one, there has been extensive research on a variety of topics.

In order to come to a formal definition of the term social media, Kaplan and Kaenlein (2010) start off by clarifying the two related concepts of 'web 2.0' and 'user generated content'. The term web 2.0 was first used in 2005 to describe a new way in which software developers and users make use of the World Wide Web (Constantinides & Fountain, 2008). This means that

applications and content are no longer created and distributed solely by individuals, but instead are continuously being updated by different individuals who are working in a collaborative fashion. Applications such as a personal website or an online dictionary represent the idea of content publishing in a web 1.0 way, whereas applications such as blogs and wiki's replace them in web 2.0 (O'Reilly, 2005). Even though web 2.0 doesn't refer to any technological upgrade of the World Wide Web, there is a number of new web-technologies closely related to its functioning. Therefore, Kaplan and Haenlein (2010) describe web 2.0 as the ideological and technical foundation of both user generated content and social media, by combining a new set of web-technologies and a new mentality towards using the World Wide Web.

The term 'user generated content' gained broad popularity in 2005 and it is used to describe a variety of media content publicly available on the World Wide Web and created by end-users (Keen, 2007). Kaplan & Haenlein (2010) describe three basic requirements for media content to meet in order to be considered user generated content. The first requirement is that the content needs to be available through a public website or a social networking site accessible to a selected group of people. Secondly, it needs to show a certain amount of creative effort, and third, it must be created outside of professional routines and practices (Kaplan & Haenlein, 2010). The first requirement excludes a conversation via e-mail or instant messaging from classifying as user generated content; the second excludes a mere copy of content already present on the Web (e.g. copying a news story on to a blog without adding any modification or comment); and the third requirement excludes any content created with a commercial market context in mind. According to Kaplan and Haenlein (2010), user generated content can be seen as the sum of all ways people make use of social media.

Kaplan and Haenlein (2010) describe the way social media fit into the picture as follows: "*[...] social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content.*" (p.61). Lee & Ma (2011) define social media as: "*Internet-based services that allow individuals to create, share and seek content, as well as to communicate and collaborate with each other.*" From an organizational point of view, social media is a set of tools that allow organizations to get to know customers, markets and competitors in real time, as well as to involve these customers in communication, marketing and innovation processes (Constantinides et al, 2008). These general definitions are applicable to a wide variety of social media applications (e.g. Facebook, Wikipedia and Youtube), but don't do justice to the differences that exist between them. Therefore a more detailed understanding into the concepts that lie behind social media is needed, so that different types of social media can be distinguished (Kietzmann et al, 2011). A variety of social media types can be identified by relying on a set of theories in the field of media research and social processes.

### 2.1.2 Social presence and media richness

From an academic point of view, new media – including social media applications – are simply new types of media that have their place within the media spectrum alongside traditional media and can be studied using (traditional) media theory (Kietzmann et al, 2011). Most social media applications are designed to allow users to connect with each other and facilitate interaction and the exchange of information. Social presence theory states that media differ in the level of social presence that they allow for between communication partners (Walther, 1992; Biocca, 1997). Social presence is defined as the acoustic, visual and physical contact that can be achieved in a communication setting. Key elements within social presence theory are intimacy (interpersonal vs. mediated) and immediacy (asynchronous vs. synchronous) of communication (). It can be expected that social presence is higher for interpersonal communication (e.g. a face-to-face conversation) than mediated communication (e.g. a conversation via telephone) and for synchronous communication (e.g. instant messaging) than asynchronous (e.g. an e-mail conversation). When social presence increases, the influence communication partners have on each other's behaviour also grows larger (Skalski & Tamborini, 2007).

A concept closely related to social presence is the media richness. Media richness theory (Daft et al., 1987) is based on the idea that media differ in the degree of richness they possess, and that, depending on the amount of richness, different media are suitable for different kinds of communication. According to Daft et al. (1987), the degree of richness a specific medium possesses, depends on (1) immediacy of feedback that is allowed by the medium, (2) the number of cues that can be transmitted via the medium, (3) the extent to which a medium allows for language variation, and (4) the extent to which a medium allows for message personalisation, for instance by transmitting feelings and emotion. In this approach face-to-face communication is the richest form of communication, while an unaddressed document is the least rich form of communication.

### 2.1.3 Self-presentation and self-disclosure

Concerning the social processes that take place when using social media, the concept of self-presentation states that people have the desire to exercise control over the impressions other people form of them (Kaplan & Haenlein, 2010). This is because people want to create an image for themselves that is consistent with their personal identity, and because people want to influence others in order to get a reward. Self-presentation is managed through self-disclosure, which is defined as sharing personal information such as thoughts and emotions, either consciously or unconsciously. Self-disclosure is a very important aspect in the development of close interpersonal relationships like friendships and during dating, but it can also occur between total strangers, for instance when sharing a personal problem with the passenger next to you on the train.

		Social presence / media richness			
		Low	Medium-low	Medium-high	High
<b>Self- presentation / self- disclosure</b>	<b>High</b>	Blogs	Discussion boards	Social networking sites	Virtual social worlds
	<b>Low</b>	Collaborative projects	Content aggregators	Content communities	Virtual game worlds

Table 1: Social media categories.

Combining both dimensions, Kaplan and Haenlein (2010) develop a 3 by 2 typology to classify six kinds of social media. However, as Constantinides and Fountain (2008) argue, there are more kinds of social media than these six. By adding an extra column, additional kinds of social media can be added, as shown in table 1 above. When looking at social presence and media richness, collaborative projects such as Wikipedia and blogs score lowest because their content is mostly text-based and therefore only allows for a relatively simple exchange. Discussion boards and content aggregators get a medium-low score, as they allow for the exchange of photos in addition to plain text. Social networking sites such as Facebook or Myspace, and content communities such as Youtube or Flickr, are social media showing medium-high levels of social presence and media richness because they, in addition to text-based communication, give users the possibility to exchange photos, videos and other forms of media. The highest levels of social presence and media richness in social media are found in virtual social (e.g. Second life) and game worlds (e.g. World of warcraft), because they try to replicate face-to-face communication in a virtual environment.

Concerning self-presentation and self-disclosure, blogs generally score higher than collaborative projects do, because the latter focus on the objective description of a specific subject. Blogs allow for the communication of a more personal view on a certain topic. The same is true for discussion boards and content aggregators. Discussion boards allow for more personal communication than content aggregators do. Similarly, social worlds score higher than virtual game worlds because in the latter there are strict guidelines that force users to behave in a certain way. For instance, playing as a warrior differs greatly from playing as a mage.

### Paragraph overview

In this paragraph the concept of *social media* was defined and elaborated on. Social media can be viewed from a number of perspectives (Constantinides & Fountain, 2008; Kaplan & Haenlein, 2010). The most obvious perspectives relevant to the current study are those from a user / consumer and an organizational point of view. Even though social media themselves don't change, the differences between both perspectives are vast.

From a user point of view, social media are a set of internet-based, interactive applications that allow users to create and share content, as well as to communicate and collaborate with each other (Kaplan & Haenlein, 2010; Li & Ma, 2011). From an organization point of view on the other hand, social media are a set of tools that allow organizations to get to know customers, markets and competitors in real time, as well as to involve these customers in communication, marketing and innovation processes (Constantinides et al, 2008).

Social media can be found in many forms. Using theories of social presence, media richness, self-presentation, and self-disclosure, various social media categories can be distinguished (see table 1). These categories can be used to group specific social media applications, based on their properties.

## 2.2 Pattern approach

This paragraph focuses on the pattern approach and seeks to answer the question what the pattern approach encompasses. First, the origin of the pattern concept will be described, and the concept itself will be explicated. Next, the structure of an individual pattern and the ways patterns can be developed will be elaborated on.

### 2.2.1 Patterns and pattern language: a brief history

The concept of *pattern* is a concept that can be found in many disciplines, ranging from fashion to mathematics, often referring to a systematically recurring (set of) objects or events. The Oxford Dictionaries Online defines a pattern as *“a regular and intelligible form or sequence discernible in the way in which something happens or is done”*.

The *pattern language approach*, as coined by Alexander et al (1977) in the field of architecture, provides a framework for describing and linking recurring issues and their solutions within a field of expertise, in a way that both professionals and novices can use them. The bases of the pattern language approach are individual patterns, which are defined By Borchers (2001) as *“a proven solution to a recurring design problem”*, and which can be thought of as semi-structured chunks of information, all sharing the same basic structure (Schuler, 2008). Alexander (1979) describes a pattern as *“[...] a three-part rule, which expresses a relation between a certain context, a problem and a solution”* (p. 247). In the Alexandrian sense, the term ‘problem’ refers to a certain system of forces, and the term ‘solution’ refers to the way these forces are allowed to resolve themselves. By describing the context, problem and solution, a pattern is made explicit and provides insight not only into something that can be observed everywhere around us, but also helps us to understand in which circumstances it can be employed and how to employ it. Or, to quote Alexander: *“The pattern is [...] at the same time a thing, which happens in the world, and the rule which tells us how to create that thing, and when we must create it. It is both a process and a thing, both a description of a thing [...], and a description of the process which will generate that thing”* (1979 p. 247).

In their work, Alexander et al (1977) describe 253 patterns in the field of architecture on different levels, ranging from general (e.g. pattern #1: Independent regions) to highly specific (e.g. pattern #253: Things from your life). All patterns are linked to relevant earlier (i.e. more general) and later (i.e. more specific) patterns. It is the way that these patterns relate to each other and how patterns are combined that forms a pattern language (Schuler, 2008), which, for example, tells us how best to design a park, a house, or a living room. Generally formulated, a pattern language is a structured method of describing good design practices.

Over the years, the pattern language approach has found its way across many disciplines, primarily within the domain of computing, resulting in ‘design patterns’ (the equivalent to Alexander’s ‘patterns’) and pattern languages used in software development, interaction design,



and multi-disciplinary projects (Borchers, 2001; Cooper et al, 2007; Dearden & Finlay, 2006; Martin & Roski, 2007; Schuler, 2008).

### 2.2.2 The structure of a pattern

Now that the pattern language approach had been described, more insight into the structure of an individual pattern will help to gain more insight into the concept. A pattern has been defined as a semi-structured chunk of information, sharing the same basic structure with other patterns (Schuler, 2008) in the previous paragraph. In this paragraph, attention will be paid to the building blocks of individual patterns and the way they vary across disciplines.

As noted in the previous paragraph, Alexander (1979) describes a pattern as “[...] a *three-part rule, which expresses a relation between a certain context, a problem and a solution*” (p. 247). In this description, three main elements in the structure of a pattern are included, namely context, problem and solution. These three elements form the core of a pattern, although a pattern consists of more basic elements. In Schuler’s (2008) description of the Alexander’s pattern structure, two basic elements are added: name and discussion. Borchers (2001) adds an additional three elements: an illustration, examples, and a diagram. Note that pattern languages applied in different fields may show a slight variation of basic elements between each other, depending on the purpose a pattern language serves. For instance, the pattern language by Alexander et al (1977) is developed with the idea that people with a non-architectural background should be able to use the pattern language to shape their surrounding and design their own buildings, parks and towns, whereas most pattern languages applied in software engineering are developed for professional usage only (Borchers, 2001).

A pattern language developed for professional use in software engineering may have an emphasis on functionality, focussing on context and adding a diagram for clarity, while a pattern language aimed at novices may have an emphasis on inspiring people, using images and drawn figures with a sensitizing purpose. Also, the matters discussed in elements with the same name may vary across pattern languages used in different fields. For example, Alexander (1977) and Borchers (2001) use the ‘context’ element to describe which larger, more general patterns are connected to the pattern discussed, and use the ‘references’ element to describe which smaller, more specific patterns are connected to the pattern discussed. In contrast, Schuler (2008) uses the ‘context’ element to describe the (non-pattern) context in which the pattern discussed fits, while a reference to both larger and smaller patterns is made in a single element called ‘linked patterns’.

In conclusion, an individual pattern within a pattern language can be viewed as a semi-structured chunk of information, sharing its basic structure with other patterns in the language. Across pattern languages the structure of an individual pattern may vary, although the information it contains is largely similar. The basic structure of an individual pattern, based on the structures used by Borchers (2001) and Schuler (2008), and can be described as follows:

- Each **pattern** addresses a recurring design problem, and suggests a solution to it.
- The **name** of the pattern refers to its central idea quickly
- The **problem** describes the major issue the pattern addresses.
- Each pattern has a specific **context** which embraces:
  - Salient features of the environment
  - Salient features of the person(s) affected
  - The objectives of the person(s) affected
- The **discussion** section forms the largest part of a pattern. It describes situations in which the problem has been encountered, and how it has been solved in these situations.
- The **solution** generalizes from the discussion a proven way to balance the forces and solve the problem for the given context.
- In the **linked patterns** section, the pattern is linked to both larger, more general, and smaller, more specific, patterns found in the pattern language.

The structure of an individual pattern, as described above, gives an idea of the way a pattern is constructed, and how it can be used. The next paragraph will focus on the way scholars have identified and constructed patterns and pattern languages.

### 2.2.3 Developing patterns and a pattern language

Since Alexander et al (1977) coined the pattern language approach, various pattern languages covering a range of disciplines have been developed. These pattern languages differ not only in their subject matter, but also in their target audience. As shown in the previous paragraph, this results in slight differences in the structure of individual patterns between pattern languages. When it comes to the development of patterns and pattern languages, different development methods have been used, too.

The pattern language by Alexander et al (1977) is developed with the idea that people with a non-architectural background should be able to use the pattern language to shape their surrounding and design their own buildings, parks and towns. Being architects, the pattern language was developed by the authors themselves and Alexander explains how in his work 'The timeless way of building' (1979). According to Alexander, *"to make a pattern explicit, we merely have to make the inner structure of the pattern clear"* (1979, p. 249). The first step in Alexander's approach is to define a physical feature that seems worth extracting further. In the case of a social media news interaction pattern, you may get the feeling that something is helping to make you feel in the right place when visiting an online news service. By asking questions such as *'what is this something?'*, *'why is this something helping to make this page work?'* and *'when, or where, exactly will this work?'*, the feature can be identified. Next,

Alexander suggests defining the problem, or the opposing forces that are balanced by the feature identified. Then, the context, or contexts, in which the pattern can be used is to be defined. According to Alexander, the aforementioned elements form the core of a pattern. By describing the context, problem and solution, a pattern is made explicit and provides insight not only into something that can be observed everywhere around us, but also helps us to understand in which circumstances it can be employed and how to employ it.

The pattern language developed by Schuler (2008), focussing on civic and community information and communication, is an example of a language primarily aimed at professional usage, aiming at a variety of professionals working in academic disciplines, social movements and nongovernmental organizations. Because this pattern language has been developed in a different discipline and in a different time (some 30 years later) than Alexander's pattern language, some differences in pattern, and pattern language, development can be found. First, unlike Alexander, Schuler had modern ICT technologies at his disposal. For pattern development, Schuler used a specially designed piece of software, in which people were able to submit patterns. This allowed many specialists on various terrains within civic and community information and communication, from all over the world, to take part in the project and facilitated a way for pattern reviewing and validation.

Schuler (2008) doesn't describe the exact process of individual pattern development. The pattern development process has been an effort of many different experts, from various countries around the world, so it is likely that not all patterns were developed using the same process. Schuler does, however, describe the process of pattern discussion, refinement, ordering and validation to some extent.

When the individual patterns have been developed, reviewed and refined, they need to be organized in some way to form a pattern language. Schuler (2008) identifies four, possibly partly overlapping ways for pattern categorizing, a process Schuler describes as the prelude to organizing. First, patterns can be categorized on the basis of core themes. Second, computers can be used for pattern categorization, using keywords. Third, people can guide the process through a constructed categorization approach, in which they indicate the pattern they would use next when using a certain pattern. Finally, the patterns can be categorized according to a generic scheme, or a continuum. Schuler (2008) opts for the last described way of pattern categorization, ordering the patterns in nine categories, from general to specific, similar to the way Alexander et al (1977) categorize their pattern language.

### Paragraph overview

In this paragraph the *pattern* concept played a central role. An overview of its origins and the way it has been applied was given, and the structure and development of patterns was explained, on the basis of these applications.

The *pattern* concept can be found in many disciplines, often referring to a systematically recurring set of objects or events. Alexander et al (1977) originally developed their pattern language in the field of architecture, but the approach has also been applied successfully in the fields of software development, interaction design, and multi-disciplinary projects (Borchers, 2001; Cooper et al, 2007; Dearden & Finlay, 2006; Martin & Roski, 2007; Schuler, 2008).

An individual pattern within a pattern language can be viewed as a semi-structured chunk of information, sharing its basic structure with other patterns in the language. Across pattern languages the structure of an individual pattern may vary, although the information it contains often is largely similar. When it comes to the development of patterns and pattern languages, different development methods have been used, too.

Alexander (1979) developed his pattern language on architecture by focussing on his surroundings, and extracting elements worth examining further from his surroundings. Schuler (2008), in contrast, developed his pattern language on civic and community information and communication using a piece of software in which a selection of experts submitted and reviewed patterns.

## 2.3 Social media patterns

The two previous paragraphs have provided insight into the concept of social media (paragraph 2.1) and the pattern approach (paragraph 2.2). In this paragraph the emphasis lies on bringing the concepts of the previous paragraphs together, resulting in social media patterns. The concept of social media pattern will be defined, and central elements such as context, goals, interaction, and applications will be described.

### 2.3.1 Social media and pattern language

Social media have been widely studied in different areas, using a variety of perspectives, approaches and theories. In most studies specific social media applications are approached in relative isolation (Kim et al, 2010). In a practical situation however, social media are used in many different ways and in many different contexts (Kietzmann et al, 2011). By focussing solely on specific social media applications or the forms social media take without taking into account elements such as their functionalities and the context in which they are being used, critical insights concerning creative, dynamic usage may be overlooked.

The approach on social media that is taken in this study aims to incorporate various relevant elements into a single model, the *social media pattern model*. The basic idea behind this model is that no single social media application can provide added value in every thinkable situation. Rather, the extent to which a specific social media application can be useful and successful depends on the context of the situation in which it is employed, the goals or objectives that both the organization and the user want to meet, and the interactions through which these objectives can be met. Projecting the pattern approach onto social media allows for a description of the aforementioned relevant elements, while the nature of the pattern approach ensures that these elements can be viewed in relation to each other.

Within the social media patterns model, social media patterns are defined as follows:

*A social media pattern is a description of a social media usage process, comprised of context, goal, interaction or interfaces, and in which processes are characterized by context-, goal-, interaction- and interface-dimensions.*

In this definition, the domain in which social media patterns are being used can be viewed as the *context*. The *goal dimensions*, describing the goals or objectives to be obtained through social media usage in the given context, can be described from an organizational point of view or a user point of view. *Interaction patterns* describe various kind(s) of possibilities for interaction, which can be linked to specific relevant user and / or organization goals. Social media platforms that enable for specific kinds of interaction are described in the *interface patterns*, which can be linked to relevant *interaction patterns*.

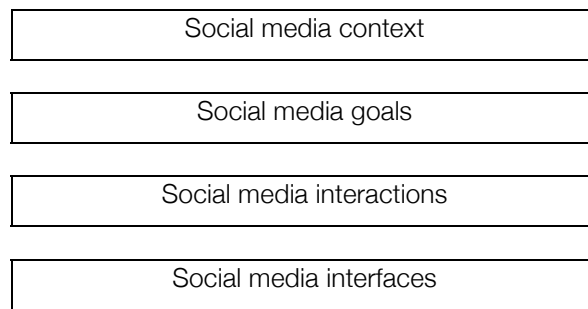


Fig.1: Social media pattern levels

Figure 1 pictured above is a visual representation of the social media pattern approach. Social media patterns can be used to develop a social media strategy by working through figure 1 from the top down. This way, an organization first examines the context in which social media are to be employed. Then, social media goals are formulated. After that, based on the social media goals, relevant social media interactions are identified. Finally, based on the social media interactions, relevant social media interfaces are selected. Social media patterns can be used to evaluate an existing social media strategy by working through figure 1 from the bottom up.

The next four paragraphs provide a more detailed description of the social media pattern levels of social media context (2.3.2), social media goals (2.3.3), social media interactions (2.3.4), and social media interfaces (2.3.5).

### 2.3.2 Social media context

To get an idea of the contexts in which social media can be found, contingency theory may provide a useful framework. Within organization studies, contingency theory is a framework providing a coherent paradigm for the analysis of organizational structure (Donaldson, 1996). The basic assumption of contingency theory is that there is no single organizational structure that is highly effective for all organizations. Instead it considers the optimal structure as varying according to certain factors. These factors are called *contingencies* and can be placed into two categories: technology (or the technical system) and the environment (or context) (Jägers et al., 1995). There are two specific matters of importance when it comes to the environment of an organization: environment dynamic and environment complexity. An environment, or context, is considered more dynamic when it is highly subject to change. A context is considered more complex when the organization has to take into account many different, and mutually connected entities in the direct environment of the organization (Jägers et al., 1995).

Applying contingency theory to the case of social media, it can be stated that social media do not have a single form or type that provides a useful, successful addition to every domain or context. Rather, the usefulness and amount of success would depend on the context, which may vary from the domain of online news to that of reputation management to online marketing.

A good analogy to this matter may be the way Wittgenstein thought about language in his later years. Wittgenstein (2006) states that, when used in language, words do not have a fixed meaning. Words only obtain meaning when they are being practised in language, in what Wittgenstein calls 'language games'. A language game can be viewed as a way of practising language in a specific situation. Different language games are applied to different situations and each language game has its specific characteristics that may not be applicable to other language games. For example, the word 'spring' as a noun may refer to a season of the year, water, or a piece of curved metal. As a verb it may refer to moving rapidly or to appearing suddenly. That is five possible meanings to just one word. It is the context of the word, (i.e. the language game in which it is used) which determines what is meant by 'spring'.

Similarly, there is no one way in which a certain kind or type of social media can only be used. Instead, social media can be utilized in many different ways and when asking what the usage of a specific kind of social media means, it would make sense to study the context in which it is used.

In this study the context in which social media are studied is that of online news. When looking at online news from a contingency perspective, online news can be viewed as a highly dynamic and highly complex context. The online news context is highly dynamic because it is subject to change on an hourly basis. News is made 24/7 and, especially in online news, consumers want to be updated in real-time. The online news context is highly complex because an online news organization has to take into account many stakeholders (both external and internal) and their interests. External stakeholders include (online) advertisers, subscribers, non-subscribers, and press relations. Internal stakeholders include newspaper management, journalists and the editorial team, the sales team, and the marketing team.

Social media patterns ultimate job is to describe social media use, and to help organizations in developing their social media strategy and reach their social media objectives. It is through the use of social media interfaces that the associated social media news interaction patterns help to reach stakeholders goals and thus create value for these stakeholders. In this study, stakeholders aren't treated individually. Instead, stakeholders are grouped according to the goals social media can help them achieve. In the next paragraph, the following goals are discussed: (1) news organization goals, and (2) user goals. Ideally, a social media interaction pattern allows multiple stakeholders to meet their goals.

### 2.3.3 Social media goals and measurement

With the social media craze at its highest, many organizations felt the need to 'do something' with social media and decided to jump in and start using them, without thinking too much about goals and measurement (Petouhoff, 2012). Now that social media are becoming an accepted

element of business in general and marketing and communications in specific, more attention is being paid to goals, measurement and ROI of social media (Murdough, 2009; Petouhoff, 2012). Even though professionals are moving towards formulating goals for, and measuring the effects of their social media efforts, social media (ROI) measurement is still in its infancy and has been compared to the state of web analytics in the mid 1990s (Murdough, 2009). Indeed, as Petouhoff (2012) shows, a vast majority of marketers feel they can't measure social media ROI, while a majority have labelled social media measurement as a priority in order to improve effectiveness and integration with other marketing efforts.

By identifying organizational goals and associated key performance indicators (KPIs), as well as user goals and associated key need indicators (KNIs) we aim to create a model for the implementation of social media interaction patterns linked to specific organizational and user goals within the context of online news.

### 2.3.3a News organization goals

At the dawn of the 21st century, journalists generally viewed the Internet as posing a threat to the practice of objective journalism. However, with the rise of online news services and social media over the last decade, journalists' negative reactions have softened over time (Ruggiero, 2004). Most literature on online news services and the integration of interactive features and social media is written from a users perspective. In recent years however, a number of studies have focussed on the value the Internet and social media have for journalists.

For a newspaper, there are three important business goals: (1) earning profits as high as possible, (2) reaching an audience as large as possible, and (3) practicing high quality journalism (Beam, 2006). But when it comes to formulating goals for social media efforts, according to Hoffman and Fodor (2010), the emphasis shouldn't be on traditional business goals (e.g. direct sales, direct cost reductions, increases in market share, etc.). Rather, the authors emphasize the importance of having objectives that take advantage of specific social media characteristics. Hofmann and Fodor (2010) identify the following three social media goals: (1) *brand awareness*, (2) *brand engagement*, and (3) *word of mouth*. Petouhoff (2012), on the other hand, stresses that it is important to realize that social media goals are organization specific, and that there isn't just one answer for how and what to measure in social media. She does however mention a number of typical social media business goals which can be viewed as more detailed objectives in addition to the goals formulated by Beam (2006) and Hoffman and Fodor (2010). Typical social media business goals according to Petouhoff (2012) are: (1) *determining what people are saying about your organization via social media monitoring*, (2) *gathering competitive intelligence*, (3) *engaging with customers and prospects online*, (4) *building thought leadership*, (5) *maximizing reach of content and messaging*, (6) *supporting existing sales and marketing efforts*, (7) *supporting recruiting and retention efforts*, and (8) *building a customer community to provide support and advocacy*. Li and Bernhoff (2011) describe a set of similar goals, including (1) *social*



*media monitoring*, (2) *engaging with customers*, and (3) *energizing customers*. Table 3 on the next page provides an overview of a news organisation's general social media goals as well as more detailed social media objectives associated with those goals.

From a journalistic organizational point of view, the Internet in general and social media in specific provides a number of opportunities. Kerrigan and Graham (2010) describe the impact the Internet and web 2.0 have on the theoretical model of the news-media value chain, changing the balance of power in news production and distribution. According to Kerrigan and Graham (2010), web 2.0 allows users, either individually or in social networks, to produce and distribute news based on their own observations and opinions. This represents a significant change in the balance of power, because news organizations no longer have a monopoly on the production and distribution of news. On top of that, web 2.0 forces news organisations to deal with a fragmented audience, and declining reach (Kerrigan & Graham, 2010).

Publisher goals	Internet / social media objectives
Large audience / brand awareness	<ul style="list-style-type: none"> <li>- News distribution (Oluseyi &amp; Gallop, 2010; Kerrigan &amp; Graham, 2010; Petouhoff, 2012)</li> <li>- Enhance news provision (Kerrigan &amp; Graham, 2010)</li> <li>- Build thought leadership (Petouhoff, 2012)</li> </ul>
Brand engagement	<ul style="list-style-type: none"> <li>- Build customer community (Petouhoff, 2012; Li &amp; Bernhoff, 2011)</li> <li>- Engage with customers (Petouhoff, 2012; Kerrigan &amp; Graham, 2010; Li &amp; Bernhoff, 2011)</li> </ul>
Word of mouth	<ul style="list-style-type: none"> <li>- Maximize reach (Petouhoff, 2012)</li> </ul>
High quality journalism	<ul style="list-style-type: none"> <li>- Find news sources (Lariscy et al., 2009; Ruggiero, 2004; Waters et al. 2010)</li> <li>- Co-creation (Kerrigan &amp; Graham, 2010)</li> <li>- Relational exchanges (Kerrigan &amp; Graham, 2010; Petouhoff, 2012)</li> <li>- Fact check (Kerrigan &amp; Graham, 2010)</li> </ul>
High profits	<ul style="list-style-type: none"> <li>- Support sales and marketing (Petouhoff, 2012)</li> <li>- Support recruiting and retention efforts (Petouhoff, 2012)</li> </ul>

Table 2: Publisher goals and associated social media objectives.

On the other hand, social media give news organisations unprecedented opportunities for user participation and engagement (Li & Bernhoff, 2011). What this means is that news organisations can use the changing balance of power to their advantage by enabling users to co-produce, co-distribute and to engage with the news organization. Co-creation experiences and relational exchanges make for an intensification of engagement and give the user more influence on selection and certification processes, while Internet media and device convergence influence the production and distribution of news (Kerrigan & Graham, 2010). When it comes to the journalist source mix, Lariscy et al. (2009) found that non-interactive online information sources (such as web-pages and directories) remain the most important sources for journalists. However, like Kerrigan and Graham (2010), the authors found journalists not opposed to using social media for selection and agenda-building processes.

Table 2 on the previous page provides an overview of the ways in which social media news interaction patterns can contribute to various (journalistic) organizational goals, as identified on previous pages. For instance, social media news interaction patterns that allow for news distribution and that have the potential to enhance news provision can be utilized by journalists and newsroom supervisors to maximize an articles' reach and increase brand awareness. Social media can also be used to increase journalistic quality. Journalists can use social media to do fact-checks and the Internet and social media enable journalists to find news sources and quotes and to intensify reader engagement through co-creation and relational exchanges.

### **Key performance indicators**

When social media goals have been formulated, a news organization, or any organization for that matter, needs to have a way of measuring the extent to which social media objectives are being reached. This is done by identifying key performance indicators (KPIs) and establishing performance benchmarks for social media (Murdough, 2009).

Key Performance Indicators are metrics such as *number of followers*, *number of times posted to social media*, and *number of comments*. More traditional web-analytics metrics can also be used as KPIs for social media measurement. For instance, measuring the number of visitors that have been referred to a website or webpage from social media can be very helpful. KPIs can vary from situation to situation, depending on the objectives formulated for social media implementation. A selection of typical KPIs for frequently formulated social media objectives is summarized in table 3 on the next page.

As mentioned before, social media measurement is still in its infancy and developments in measurements and methods are discussed widely on marketing and tech blogs every day. One of the latest developments in social media measurement is using ratios and multiple KPIs for the measurement of a single social media objective. This means that, for instance, measuring the success of enhancing news distribution isn't being measured by the number of times content is

Internet / social media objective	Key performance indicator (KPI)
Enhance news distribution /	- Number of times reposted on social media
Enhance news provision	- Number of times reposted on specific social media
Maximize reach	- Number of unique visits
	- Number of return visits
	- Number of social media visits
	- Number of specific social media visits
	- Number of page views
	- Potential reach
Build thought leadership	- Number of tweets about the brand
	- Number of tweets with brand hashtags
	- Share of conversation
Build customer community	- Number of followers
	- Number of friends / fans
	- Number of comments
	- Number of relevant comments
	- Length of comments
	- Number of individual replies
	- Number of active users
	- Number of @mentions
Engage with customers /	- Number of @mentions
Relational exchanges	- Number of @replies
	- Number of comments
	- Number of relevant comments
	- Number of individual replies
	- Length of replies
	-
Co-creation	- Number of creation attempts
	- Amount of user generated content
	- Number of user generated items

Table 3: Social media objectives and associated KPIs.

being shared to social media alone, but instead it's measured by the number of times content is being shared to social media in relation to the number of unique visitors of that content. In the same manner, engagement on Twitter isn't measured by the number of @replies solely, but by the number of @replies in relation to the number of followers. This way, KPIs become more

valuable in terms of information on their own and data collected at varying points in time can more easily be compared to each other and to benchmarks.

### 2.3.3b User goals

When it comes to the question of the value media have to a user, or what people get out of using a specific medium, the uses and gratifications approach seeks to answer those kinds of questions. The first studies taking a uses and gratifications perspective in the field of media date from as early as the 1940's. The approach was rediscovered some 20 years later, when Katz (1959) suggested to ask the question "what do people do with the media?" instead of "what do the media do to people?". According to McQuail (2000), the basic assumptions of the uses and gratifications approach can be summed up as follows:

- Media and content choice is generally of a rational nature and is directed towards certain specific goals and satisfactions
- Audience members are conscious of the media-related needs which arise in personal and social circumstances and can voice these in terms of motivations
- Broadly speaking, utility is a more significant determinant of audience formation than aesthetic or cultural factors
- All or most of the relevant factors for audience formation (motives, perceived or obtained satisfactions, media choices, background variables) can, in principle, be measured

Within the uses and gratifications approach, various scholars have developed frameworks in which the most important mass media satisfactions and needs are captured. McQuail et al. (1972) identify four categories of mass media satisfactions and the needs they fulfil. Similarly, Katz et al. (1973) identify five such categories. Table 4 on the next page shows a variety of needs and the way these needs are segmented by McQuail et al. and Katz et al.

While the uses and gratifications approach has received some criticism for its behaviourist and functionalist leaning, poor prediction or causal explanation of media choice and use (McQuail, 2000) and for being non-theoretical and vague in defining key concepts (Severin & Tankard Jr., 2001), it has been widely applied in studies focussing on new media and the way they are being used. The principles of the uses and gratifications approach may in fact be more suitable when studying these types of new, interactive media because, unlike traditional mass media like radio or television, when using new, interactive media one has to constantly choose between content, i.e. new media require a more active user than traditional media do. This suggests that a new media user is a user that is more aware of its needs and how to fulfil them.

Needs	Segmentation by McQuail, Blumler and Brown, 1972	Segmentation by Katz, Gurevitch and Haas, 1973
Information seeking, acquiring information, knowledge and understanding	Surveillance needs	Cognitive needs
Emotional release, pleasurable experience, escape from routine or problems	Diversion needs	Affective needs Tension release needs
Self reference, reality exploration, value reinforcement	Personal identity needs	Personal integrative needs
Companionship, social utility, strengthening contacts	Personal relationship needs	Social integrative needs

Table 4: Mass media needs and need segmentations

Over the last decades a vast body of research applying the uses and gratifications approach to the Internet has been produced. Many scholars retain the need segments that have successfully been applied to mass media. Generally, the following need segments are used in Internet uses and gratifications research: (1) information, (2) interaction / communication, (3) entertainment, and (4) identity. Some scholars add a 5th segment 'escape', while other scholars combine that segment with the segment of 'entertainment'.

Traditionally, the Internet is perceived as being an information-oriented medium (Lin, 2002). However, over the recent years a decline in using the Internet for information purposes, and an increase in use for (group)-communication and entertainment purposes can be observed (Van Deursen & Van Dijk, 2010). This phenomenon can be explained by the increasing popularity of social media and other web 2.0 websites. In contrast to static web 1.0 sites aiming to provide information, social media and other web 2.0 sites are more about (social) interaction and entertainment. Table 5 provides insight into the results of various studies applying the uses and gratifications approach to Internet use and social media use.

In table 5 on the next page, motivations for using the Internet and social media have been arranged to fit the four specific uses and gratifications need segments described earlier. Some authors apply different segments, or segment names. For instance Smock et al (2011) use the name 'expressive information sharing' for one of their segments, while the motivations in this segment would also fit the traditional 'identity' label.

Needs segment	Motivations associated with internet and social media use
Information	<ul style="list-style-type: none"> <li>- Finding information (Eighmey &amp; McCord, 1998; Larose et al., 2001; Lin, 2002; Bonds-Raacke &amp; Raacke, 2010; Johnson &amp; Yang, 2009)</li> <li>- Finding new information sources (Kaye, 2010)</li> <li>- Learn about events (Raacke &amp; Bonds-Raacke, 2008; Kaye, 2010)</li> <li>- Get (breaking) news (Lin, 2002; Kaye, 2010)</li> <li>- Enhance intellectual growth (Lin, 2003)</li> <li>- Learn interesting things (Johnson &amp; Yang, 2009)</li> <li>- Share information (Johnson &amp; Yang, 2009)</li> <li>- Get access to experts (Kaye, 2010)</li> </ul>
Interaction	<ul style="list-style-type: none"> <li>- Developing relationships (Larose et al., 2011; Bonds-Raacke &amp; Raacke, 2010)</li> <li>- Seek companionship (Lin, 2002)</li> <li>- Chat online (Lin, 2002)</li> <li>- Make friends online (Lin, 2002; Bonds-Raacke &amp; Raacke, 2010; Quan-Haase &amp; Young, 2010)</li> <li>- Maintaining relationships (Eighmey &amp; McCord, 1998; Bonds-Raacke &amp; Raacke, 2010; Johnson &amp; Yang, 2009)</li> <li>- Exchange ideas (Ma et al., 2011)</li> <li>- Socialize (Birnie &amp; Horvath, 2002; Kaye, 2010)</li> <li>- To feel connected (Bonds-Raacke &amp; Raacke, 2010; Quan-Haase &amp; Young, 2010)</li> </ul>
Entertainment / Escape	<ul style="list-style-type: none"> <li>- Finding enjoyable activities (Larose et al., 2001)</li> <li>- Relieve boredom (Lin, 2002; Ma et al., 2011; Kaye, 2010)</li> <li>- Find excitement (Lin, 2002)</li> <li>- Enjoyable (Quan-Haase &amp; Young, 2010; Smock et al, 2011)</li> <li>- Pass time (Ko et al., 2005; Ma et al., 2011; Johnson &amp; Yang, 2009; Quan-Haase &amp; Young, 2010)</li> <li>- Pleasant rest (Quan-Haase &amp; Young, 2010)</li> <li>- It's a habit (Smock et al, 2011)</li> </ul>
Identity	<ul style="list-style-type: none"> <li>- Reading others' opinions (Rafeali, 1986, Ko et al., 2005; Kaye, 2010)</li> <li>- Status seeking (Lee et al., 2011)</li> <li>- Identify with others (Barker, 2009; Kaye, 2010)</li> <li>- Belong to a community (Park et al, 2009)</li> <li>- Express myself (Johnson &amp; Yang, 2009; Kaye, 2010)</li> <li>- Forming my own opinion (Kaye, 2010)</li> <li>- Everyone's doing it (Quan-Haase &amp; Young, 2010; Smock et al, 2011)</li> </ul>

Table 5: Media needs and associated motivations for using the Internet and social media.

Depending on the kind of motivation a user has for visiting a website, different effects on website adoption can occur (Castaneda, 2007). Teo et al. (1999) make a distinction between intrinsic and extrinsic motivation. Extrinsic motivation mainly applies to visiting a website with a specific goal. In this case functional aspects play a major role in evaluating the website. Intrinsic motivation has less to do with visiting a website for a specific goal, instead the visit is a goal in itself (like is the case when browsing around the internet). Teo et al (1999) connect this kind of motivation to concrete motives such as entertainment and interaction.

#### 2.3.4 Social media interaction

Interaction is a concept that generally means 'exchange', 'interplay' or 'mutual influence' (Jensen, 1998). The concept is used in many scientific disciplines, and can take on many different meanings, depending on the context. In the context of this study, a few definitions of interaction are relevant.

In sociology, 'interaction' is defined as *"the relationship between two or more people who, in a given situation, mutually adapt their behavior and actions to each other"* (Jensen, 1998 p.189). In cultural studies, the term 'interaction' covers a broad range of processes that occur between a media message and the receiver(s) of that message, for instance between a text and a reader of that text. The difference between the sociological approach and the cultural studies approach on interaction lies in the absence of reciprocity or an exchange between two or more actors in the latter. Instead, interaction in cultural studies can be described as a relationship or interpretation between the media message and the receiver(s) of that message. In informatics however, 'interaction' refers to the processes that take place when a person operates a machine (referred to as human-machine or human-computer interaction). Computer mediated communication between two humans isn't covered by this approach of interaction. From an informatics perspective it's possible to have (human-computer) interaction without communication. However, the other way around, (computer mediated) communication without (human-computer) interaction isn't possible.

#### Interactivity

In the domain of new media studies, interaction isn't used very often to describe human interaction with or through digital media, and instead, the term 'interactivity' is used to describe such processes. The concept of interactivity is derived from the concept of interaction and has its roots in the above-mentioned academic fields of sociology, cultural studies and informatics (Jensen, 1998). Even though the concept of interaction is quite well defined in various academic fields, there is little agreement on the exact definition of interactivity (Bucy, 2004; Kioussis, 2002; McMillan & Hwang, 2002). However, conceptualization efforts of the concept can be categorized into three of approaches, each with its own emphasis on interactivity.

To distinguish the three approaches on interactivity, McMillan and Hwang (2002) identify three key elements in various concept definitions, enabling the authors to categorize definitions. The three key elements are (1) direction of communication, (2) user control, and (3) time. Direction of communication is conceptualized as two-way communication, mutual disclosure, or providing feedback. User control examines the way humans control computers and other new media. Time is viewed as the time at which messages can be delivered.

The three approaches identified by McMillan and Hwang (2002) emphasize (1) features, (2) processes, and (3) perceptions of interactivity. The authors categorize definitions into these three approaches by contriving the primary focus a definition takes on interactivity from the three key elements. In the features approach, scholars focus on general characteristics of media that define interactivity. (Jensen, 1998; McMillan, 2000) The process approach covers definitions by scholars focussing on activities that are key to interactivity, such as interchange and responsiveness. In the perception approach, scholars define interactivity by investigating how users perceive and experience interactivity, instead of analyzing processes and counting features. (McMillan, 2002)

Similar to McMillan and Hwang (2002), Kioussis (2002) also distinguishes three approaches, emphasizing (1) the structure of technology, (2) the context in which communication takes place, and (3) user perception and experience of interactivity. In the scientific literature, these three approaches are used interchangeably with the approaches distinguished by McMillan and Hwang (2002).

### **Kinds of interactivity**

An important key to understanding the concept of interactivity is the distinction between different kinds of interactivity (Jensen, 1998; McMillan, 2002). McMillan (2002) identifies three different kinds of interactivity: (1) human-to-computer (user-to-system) interactivity, (2) human-to-content (user-to-document) interactivity, and (3) human-to-human (user-to-user) interactivity.

Human-to-computer interactivity covers interactive features that allow users to exercise control over a medium, e.g. a navigational tools and search tools. Human-to-content interactivity enables users to actually exercise control over the content of a medium, e.g. through the use of interactive features like personalization tools or by giving users the ability to choose between multiple media formats. Human-to-human interactivity covers interactive features that enable users to communicate with other users, e.g. through instant messaging, e-mail or discussion boards.

Chung and Yoo (2008), on the other hand, make a distinction between medium interactivity and human interactivity. Medium interactivity covers both human-to-computer and human-to-content interactivity. Human interactivity is similar to human-to-human interactivity. The authors define medium interactivity as “ [...] *interactive communication through the nature of the medium itself and how users are able to work with the technology to make choices and exert control over the*



*communication process [...] ” (p. 378). Human interactivity is defined as “ [...] communication between two or more individuals that takes place through a communication channel. This kind of interaction allows for the sender and receiver to exchange communication roles and offer feedback to each other “ (p. 378).*

The distinctions between these different kinds of interactivity combined with the three approaches on interactivity (Kiousis, 2002; McMillan & Hwang, 2002) provide a helpful way to gain more insight into the concept. As McMillan (2005) argues, it should be noted that there is more to the concept than just these two dimensions. However, combining the two dimensions in a three-by-three typology is a useful way to help clarify the concept of interactivity and provides a framework for thinking about interactivity on multiple levels.

	Human-to-computer	Human-to-content	Human-to-human
<b>Features</b>	<ul style="list-style-type: none"> <li>• Navigational tools such as menus</li> <li>• Search tools</li> </ul>	<ul style="list-style-type: none"> <li>• Tools that facilitate personalized content</li> <li>• Unique forms of content</li> </ul>	<ul style="list-style-type: none"> <li>• Instant Messaging</li> <li>• E-mail</li> </ul>
<b>Processes</b>	<ul style="list-style-type: none"> <li>• Navigating a website</li> <li>• Using a search engine</li> </ul>	<ul style="list-style-type: none"> <li>• Creating a personalized home page</li> <li>• Seeking out news stories in multiple media formats</li> </ul>	<ul style="list-style-type: none"> <li>• Participating in IM chat</li> <li>• Sending / receiving an e-mail</li> </ul>
<b>Perceptions</b>	<ul style="list-style-type: none"> <li>• Finding a website easy to control and engaging</li> <li>• May be based in experience with the technology as well as interest / involvement with topic</li> </ul>	<ul style="list-style-type: none"> <li>• Believing that customized and in-depth content is interactive</li> <li>• May be based in time available for viewing content</li> </ul>	<ul style="list-style-type: none"> <li>• Believing that IM and e-mail facilitate communication</li> <li>• May be based in personal interest or involvement with topic of communication</li> </ul>

Table 6: Kinds of interactivity from three approaches.

Besides distinguishing the aforementioned kinds of interactivity, scholars have conceptualized interactivity as a continuum on which different interactive applications can be placed, depending on their level of interactivity (Jensen, 1998). The basis of this approach lies in the idea that face-to-face interaction is the highest possible form of interaction. The more an interactive feature

resembles face-to-face interaction, the more interactive that feature is. In this approach medium interactivity (human-to-computer and human-to-content interactivity) is generally typified as being less interactive compared to human interactivity, because human-to-human interactivity shows a higher degree of resemblance to face-to-face interaction.

In this study, the approach of interactivity as a continuum is taken, which means that interactivity levels may vary and are relative to each other. A distinction is made between medium interactivity and human interactivity. Online newspapers make use of different kinds of interactive features (Chung, 2008; Chung & Yoo, 2008), such as submitting photo's or news tips, customizing news feeds (both medium interactivity) and interacting with other readers (human interactivity). These interactive applications can also be placed on different places along the interactivity continuum. In other words, some interactive features as seen in online newspapers have a more interactive character than others.

### 2.3.5 Social media interfaces

The concept of *social media* has already been addressed extensively in paragraph 2.1. Using theories of social presence, media richness (paragraph 2.1.2), self-presentation, and self-disclosure (paragraph 2.1.3), various social media categories were distinguished. Categories distinguished include blogs, collaborative projects, social networking sites, content communities, virtual social worlds, and virtual game worlds (see table 1). These categories can be used to group specific social media applications, or interfaces, based on their properties (Mangold & Faulds, 2009).

In this study, social media interfaces are viewed as a collection of all the ways in which social media applications take form. Social media interfaces, or applications, are a popular subject of study in the literature (Chen, 2011; Larosa et al, 2012; Hanson & Haradakis, 2008; Preece et al, 2004; Tsagkias et al, 2011). Because each social media category has its own list of social media interfaces, levels of interactivity and interactivity types available may vary between interfaces.

### Paragraph overview

In this paragraph the emphasis was on bringing the concepts of *social media* (paragraph 2.1) and *patterns* (paragraph 2.2) together, resulting in social media patterns. The concept of social media pattern was defined, and central elements such as context, goals, interaction, and applications were described.

A social media pattern is defined as a description of a social media usage process, comprised of context, goal, interaction or interfaces, and in which processes are characterized by context-, goal-, interaction- and interface-dimensions. In this definition, the domain in which social media patterns are being used can be viewed as the *context*. The *goal dimensions*, describing the goals or objectives to be obtained through social media usage in the given context, can be

described from an organizational point of view or a user point of view. *Interaction patterns* describe various kind(s) of possibilities for interaction, which can be linked to specific relevant user and / or organization goals. Social media platforms that enable for specific kinds of interaction are described in the *interface patterns*, which can be linked to relevant *interaction patterns*.

## 2.4 Social media news interactions

The previous two paragraphs focussed on pattern language and social media patterns. The pattern approach has been addressed in paragraph 2.2, and applied to social media in paragraph 2.3. Now that insight is gained into the structure of individual patterns, the way patterns and a pattern language can be developed, and how social media patterns are constructed, this paragraph will focus on the identification and formulation of social media interactions, which will form the basis of social media news interaction patterns.

### 2.4.1 A social media news pattern language

This study aims to develop a set of social media news interaction patterns and examine the value of those patterns. A selection had to be made because developing a complete social media pattern language is beyond the scope of this thesis when it comes to the aspects of both time and effort. Social media news interaction patterns were chosen as the object of study, because this pattern level fits the study focus best, as social media news interaction patterns deal with interactions taking place through social media, independent from the social media application used. Social media news interaction patterns can be linked to social media goals on both an organizational and user level within the context of online news, and, deducing from social media news interaction patterns and associated goals, they can be linked to specific interface patterns.

In order to be able to make a well-founded selection of patterns, it is important to have an idea of the pattern language end-user, the topics a complete pattern language may be comprised of and how the pattern language may be structured. To get a sense of which direction the pattern language takes and what it should do, formulating a general description of the pattern language can be helpful. The general description in this case can be formulated as follows:

*In the pattern language, social media news patterns describe how an online news service can engage its audience through social media functionalities, and how engaging the audience adds to the realization of both (journalistic) organizational goals and user goals.*

This description shows that the pattern language is aimed at online news professionals. That makes sense because, in first instance, the online news professional is in control as he or she determines which social media functionalities are available for the audience to use. This selection is based on (journalistic) organizational goals, a matter that concerns online news professionals, rather than the audience. So, even though the audience plays a crucial and central role in the process from social media functionality usage to (journalistic) organizational goal conversion, the online news professional is in control over the implementation of such functionalities and therefore forms the target-audience for the social media news interaction pattern language.

The general description of the social media news interaction patterns reveals two important aspects that can be crucial in the development of a pattern language. First, when social media functionalities are implemented in an online news service context, the audience is empowered by giving it means to (for instance) voice their opinion on news articles, interact with others, promote their own agenda, and influence news distribution and provision. Second, empowering the audience in such a way may add to the realization of (journalistic) organizational goals such as increasing profitability or an increase in audience volume.

#### 2.4.2 Interaction: A pattern level

The patterns included in the pattern level focusing on interaction patterns describe the ways in which various social media functionalities empower the audience of an online news service by giving them means to (for instance) voice their opinion on news articles, interact with others, promote their own agenda and influence news distribution and provision. Subsequently, an online news service can employ selected social media functionalities that best match the desired strategic outcomes.

What can be derived from this is that the patterns included in the interaction level will need to take into account user needs and motivations for using social media functionalities, as well as the goals and corresponding strategy an online news service has when implementing social media functionalities into their news application. Patterns will only create value for both the audience and the online news service when the means created by empowering the audience enable the users to fulfil their needs and when they match the online news service's goals and corresponding strategy.

As described in paragraph 2.2.3, according to Alexander, *"to make a pattern explicit, we merely have to make the inner structure of the pattern clear"* (1979, p. 249). The first step in Alexander's approach is to define a physical feature that seems worth extracting further. Although the patterns take a variety of elements into account, their core consists of a description of social media functionalities applied to the context of online news services. Scholars have emphasized the importance of studying social media functionalities when thinking about and researching social media and social media strategy (Li & Bernoff, 2011; Kietzmann 2011). Therefore, we propose an approach to social media news interaction patterns focussed on identifying a range of possible functionalities of social media within the context of usage, while restraining from labelling any individual social media applications. It is important to identify various social media functionalities, found across platforms, which can be translated into individual patterns. Because this study aims to approach social media on a more general level, cross-platform, general functionalities are utilized instead of platform-specific functionalities.

This perspective on social media hasn't been used often. As Kim et al (2010) note, most research on this topic focuses on a small number of popular applications. Indeed, the majority of

studies focus on specific social media applications (Chen, 2011; Larosa et al, 2012; Hanson & Haradakis, 2008; Preece et al, 2004; Tsagkias et al, 2011) or social media types (Boyd & Ellison, 2008; Barker, 2009; Rethlefsen, 2007). According to Kim et al (2010), the focus on very specific applications and their functionalities causes research to be rapidly outdated because social media applications evolve fast. Therefore, using cross-platform, general social media functionalities in the current study may lead to new insights, while possible results may still be relevant for a longer period of time due to the perspective taken.

A number of cross-platform social media functionalities have been identified based on 15 scientific articles researching various parts of the social media landscape. These articles study social media in general, various social media types, and specific social media applications. The literature reveals several social media functionalities that are found across social media types and applications, and can therefore be viewed as cross-platform, general social media functionalities.

Social media functionalities that were mentioned are: (1) connect, (2) share, (3) post, (4) comment, (5) discussion, (6) create and (7) vote. Being mentioned in 10 articles, the 'share' functionality is the most mentioned social media functionality, followed by 'connect' (mentioned 7 times), 'post' and 'discussion' (both mentioned 6 times), 'comment' (mentioned 5 times), 'create' (mentioned twice), and 'vote' (mentioned once). Please refer to table 7 on the next page for a detailed overview. In the section below, a detailed description of the social media functionalities is provided.

### ***Connect***

The 'connect' functionality is often linked to specific social media types, primarily social network sites and content communities that allow users to create an account and comprise a list of connections made to others within the system (Boyd & Ellison, 2008; Kaplan & Haenlein, 2010). The 'connect' social media functionality is often viewed as vital for online social network and community development (Boyd & Ellison, 2008; Kim et al, 2010). Examples of the 'connect' functionality include friending on Facebook, following on Twitter and subscribing on YouTube.

### ***Share***

This social media functionality is used to describe various kinds of content sharing and recommending behaviour on or within online social networks (Boyd & Ellison, 2008; Leino et al, 2011). Shared content may be user-created, such as photos, videos, bookmarks, and user profiles (Kim et al, 2010), but may also consist of content produced by non-users outside of the social media application (Leino et al, 2011). Content can be shared as is, or a comment may be added when sharing, as an indication of the sender's opinion or for the receiver to estimate whether or not the content shared is of interest. Examples of sharing include Facebook shares and likes, and Twitter retweets and favourites,

Social media functionality	Mentioned by
Connect	<ul style="list-style-type: none"> <li>• Boyd &amp; Ellison, 2008</li> <li>• Chen, 2011</li> <li>• Garton et al, 2006</li> <li>• Kaplan &amp; Haenlein, 2010</li> <li>• Kim et al, 2010</li> <li>• Larosa et al, 2012</li> <li>• Rethlefsen, 2007</li> </ul>
Share	<ul style="list-style-type: none"> <li>• Boyd &amp; Ellison, 2008</li> <li>• Chung &amp; Kim, 2008</li> <li>• Garton et al, 2006</li> <li>• Hanson &amp; Haradakis, 2008</li> <li>• Kaplan &amp; Haenlein, 2010</li> <li>• Kim et al, 2010</li> <li>• Kosonen &amp; Ellonen, 2009</li> <li>• Larosa et al, 2012</li> <li>• Leino et al, 2011</li> <li>• Rethlefsen, 2007</li> </ul>
Create	<ul style="list-style-type: none"> <li>• Boyd &amp; Ellison, 2008</li> <li>• Kaplan &amp; Haenlein, 2010</li> <li>• Kaplan &amp; Haenlein, 2011</li> <li>• Kim et al, 2010</li> <li>• Larosa et al, 2012</li> <li>• Phelan, 2009</li> </ul>
Comment	<ul style="list-style-type: none"> <li>• Boyd &amp; Ellison, 2008</li> <li>• Kaplan &amp; Haenlein, 2010</li> <li>• Kim et al, 2010</li> <li>• Larosa et al, 2012</li> <li>• Preece et al, 2004</li> </ul>
Discussion	<ul style="list-style-type: none"> <li>• Chung &amp; Kim, 2008</li> <li>• Garton et al, 2006</li> <li>• Kosonen &amp; Ellonen, 2009</li> <li>• Larosa et al, 2012</li> <li>• Preece et al, 2004</li> <li>• Zdravkova et al, 2012</li> </ul>
Vote	<ul style="list-style-type: none"> <li>• Kim et al, 2010</li> </ul>
Tag	<ul style="list-style-type: none"> <li>•</li> </ul>

Table 7: Recurring social media functionalities found across platforms

### **Create**

Exchanging messages and content is a central functionality on social media. Kim et al (2010) describe various facilities used for communication, including e-mail, instant messaging, text messaging, and public and private bulletin boards. Most scholars implicitly distinguish various ways in which messaging occurs. The 'create' social media functionality is used to describe one of the specific aspects of messaging and content creation on social media. Creating involves initiating the conversation, or sending the first message. The message may be comprised of text, photos, videos and playlists of music content. Examples of the social media functionality 'create' include sending a tweet on twitter (Larosa et al, 2012), writing a post on a Facebook timeline (Kim et al, 2010), opening a thread on a message board and posting a blog entry.

### **Comment**

This social media functionality describes another specific aspect of messaging on social media. *Commenting* involves leaving messages in reaction to a post or another comment (Kaplan & Haeinlein, 2010). It allows users to express their opinion on a topic discussed, and messages may be text-based or video (Kim et al, 2010). *Commenting* differs from *creating* in the sense that a comment is always a reply or a reaction on a discussion topic, while creating means that a new discussion topic is created. Examples of commenting include replying to a blog entry, sending a comment on Facebook, and sending a (video) response on YouTube.

### **Discussion**

Although the social media functionality 'discussion' is mentioned frequently, none of the articles included in the overview give a description of what is meant by *discussion* exactly. The functionality is often mentioned in relation to forums and blogs (Chung & Kim, 2008; Zdravkova et al, 2012). In the Oxford Dictionary, 'discussion' is defined as "*the process of talking about something in order to reach a decision or to exchange ideas*" and "*a conversation or debate about a specific topic*". Based on those definitions, and with the descriptions of the 'create' and 'comment' social media functionalities in mind, the social media functionality 'discussion' can be described as a feedback loop. Discussion means that a form of feedback occurs in the comment section. An interaction in the form of *post > comment > comment-on-comment* would fit the label 'discussion', while an interaction in the form of *post > comment* would fit the label 'comment'. A *comment > comment-on-comment* type of interaction would also fit the label 'discussion', because the first comment poster is receiving feedback from a second comment poster.

### **Rate / vote**

The 'rate / vote' social media functionality is mentioned just once across the 15 scientific articles. Kim et al (2010) describe this functionality as a means to rate content, products and profiles on



social websites. Examples include 1-5 star rating systems (as seen on YouTube and Ebay ), and +/- systems (often used to rate user comments).

### **Tag**

This social media functionality describes various tagging applications on social platforms. It allows users to add descriptive keywords to specific content, creating a 'tag cloud' describing the content subject. Examples include tags on YouTube, Twitter hashtags and tags on various blogs.

Note that the social media functionalities described above are all examples of interactive functionalities, which can be found on news websites and applications. Applying the approaches on interactivity, as discussed in paragraph 2.3.4, to the social media functionalities results in a classification of the functionalities based on interactivity levels and kinds, as displayed in figure 2 below.

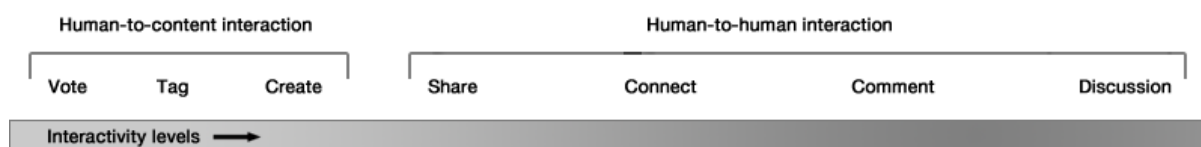


Figure 2: Social media functionalities along the interactivity continuum

The *vote*, *tag*, and *create* functionalities are considered forms of human-to-content interaction, because these functionalities are used to create personalized and unique pieces of content. The *share*, *connect*, *comment*, and *discussion* functionalities are considered forms of human-to-human interaction, because these functionalities allow for mediated communication between two or more individuals.

For these functionalities to be developed into patterns, however, user- and online news service goals need (discussed in paragraph 2.3.3) to be taken into account too. Unfortunately, due to the lack of literature on the subject of social media patterns, patterns can't be developed based on a theoretical basis. Instead, patterns will be developed through interviews with online news professionals in Chapter 3.

### **Paragraph overview**

In this paragraph the foundations for social media news interaction patterns were identified in the form of interactive social media functionalities. Seven social media functionalities, found across various types and applications of social media, were identified through the literature. These social media functionalities include *connect*, *share*, *create*, *comment*, *discussion*, *vote*, and *tag* functionalities. The social media functionalities were divided in *human-to-content* and *human-to-human* interaction categories, and placed along the interactivity continuum (see figure 2).

## 2.5 Theoretical framework outcomes

In this chapter, three themes were discussed using scientific theories and literature. In the first paragraph the concepts of *social media* was defined from a user- and an organizational perspective, and several social media categories were identified, including blogs, social networking sites, content communities, and virtual social worlds. In the second paragraph the *pattern approach* was introduced. Definitions, applications, and pattern structure and development were discussed. The third paragraph aimed to unify the concepts discussed in the previous paragraphs into the concept of *social media patterns*. Four pattern levels, including social media context, social media goals, social media interactions, and social media interfaces, were identified and discussed. This lead to the development of a foundation for *social media news interaction patterns* in the fourth paragraph of this chapter. In this paragraph the social media functionalities of *connect*, *share*, *create*, *comment*, *discussion*, *vote*, and *tag* were extracted from the literature and described in terms of use and interactivity.

In the continuation of this study, the *social media news interaction patterns* are developed and examined further in an exploratory study using a two-step approach. In the first step (Chapter 3), theoretical framework outcomes are validated, and relevant social media news interaction patterns are distinguished through expert interviews. In the second step (Chapter 4), the value of social media news interaction patterns for publishers and users is studied through case studies and an online questionnaire.

## 2.6 Conceptual model

In this paragraph the conceptual model for social media news patterns is introduced. In this conceptual model, various aspects discussed in the previous paragraphs are combined into an overview. The emphasis of the conceptual model lies on the organizational aspects of social media news patterns. It is expected that the value of social media news interaction patterns can be proven through the conceptual model.

In the conceptual social media news pattern model displayed in figure 3 below, the four elements discussed in paragraph 2.3 are shown: *social media context*, *social media goals*, *social media interactions*, and *social media interfaces*. The element of *social media goals* is divided in social media publisher goals and social media user goals.

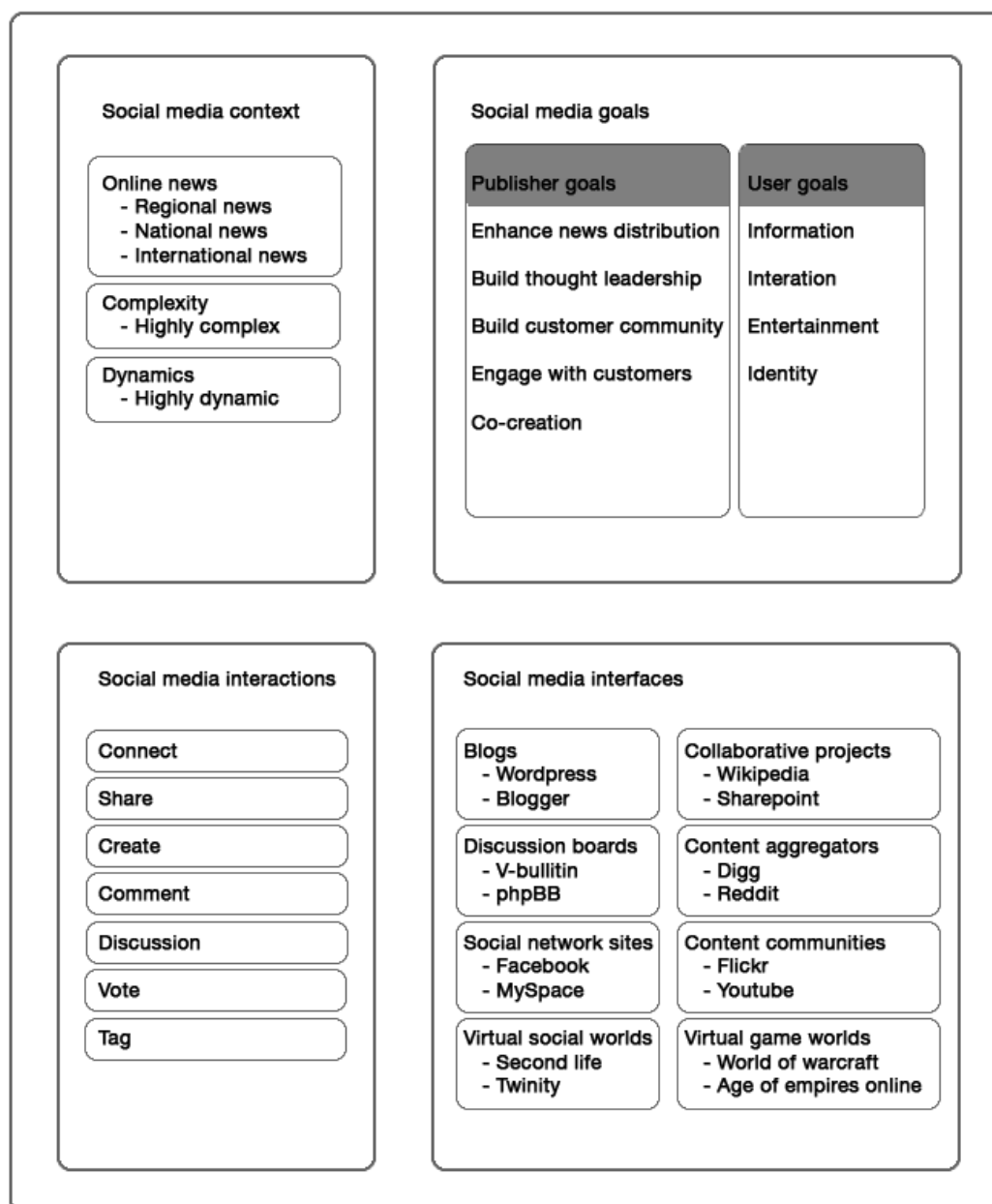


Figure 3: Conceptual social media news pattern model

The conceptual model will be examined further in the following chapters using a two-step approach. Chapter 3 describes the first step, which focuses on the validation of the theoretical framework outcomes through expert interviews. This step also aims to distinguish relevant social media news interaction patterns.

In the second step, discussed in chapter 4, the value of social media news interaction patterns for publishers and users is studied. Publisher value is operationalized through measurement of publisher goals for using social media. User value is operationalized through measurement of user goals for using social media. Publisher value is studied using five case studies, while user value is studied using an online questionnaire. By combining the results from chapters 3 and 4, the main research question about the value of social media news interaction patterns is answered in chapter 5.

## Chapter 3. Social media news interaction pattern validation

In the theoretical framework discussed in chapter 2, this study has focussed on literature and theory, in order to answer the first three research sub questions. This way, the concept of *social media* and the *pattern approach* have been clarified, resulting in a description of *social media patterns*. Also, a number of social media functionalities found across platforms, which can be used to form a basis to develop *social media news interaction patterns*, have been described. In this phase of the study, it is important to know which social media functionalities are viewed as being a valuable addition to the world of online news in practice, and what it is that makes these functionalities valuable .

This chapter focuses on a preliminary study, which will be of qualitative nature and will consist of online interviews with professionals and experts in the field of online news. Online interviews are a way of gathering data independent of time and location, which in this case means that online news professionals from different parts of the country can participate at a time and location of their own convenience. At the same time, the individual nature of online interviews counter groupthink and makes sure all respondents are being heard equally, instead of a dominant individual's ideas overshadowing the ideas of more timid individuals.

### 3.1 Research objectives

The objective of the online interviews is to test the practical validity of the elements described in the conceptual model, as discussed in paragraph 2.7. From the literature, a selection of the most-found social media functionalities across platforms, and social media publisher- and user goals were identified. The interviews with online news professionals aim to answer the question which social media news interaction patterns can be distinguished. Relevant social media functionalities in the online news practice, and associated user- and publisher goals and measurements will be identified and combined to form these patterns.

### 3.2 Research method

The preliminary study was conducted in the month of June 2012. The online interviews were conducted in Dutch and consisted of a web-based survey containing six questions. Four of them were open-ended questions, while the other two were multiple-choice questions. Open-ended questions enable participants to answer in their own words, and encourage them to think their answers through. Multiple-choice answers on the other hand, give the opportunity to present participants with a number of pre-defined answers, making it easier to answer more specific questions. Questions (and multiple-choice answers) were based on theory and literature used in chapter 2.

Before the first question of the online interviews respondents were presented with a short description of each social media functionality identified in chapter 2.4.2. Then, in different questions, respondents were asked to indicate which functionalities could provide a useful

addition to online news in the first question, which user needs were associated with using each social media functionality, which organizational objectives could be obtained by using each social media objective, and how the success of each social media functionality is measured.

Questions on different subjects were asked on different virtual pages within the online interview. This means that once respondents had finished the questions on one subject, they would click a 'next' button, referring them to the next page. For a translated version of the online interview, please refer to Appendix A-2.

## **Respondents**

For the online interviews, online news professionals with various backgrounds in online news were approached through e-mail and telephone and were invited to participate in the online interviews. All online news professionals approached were employed by news organizations providing both a traditional newspaper and an online news service. A total of nineteen online news professionals were approached, nine of which agreed to participate in the online interviews. The group of respondents was diverse, including online news professionals from both national and regional Dutch newspapers located in different parts of the country (North, East and West). In addition, respondents included professionals at a variety of positions (including journalists, (web)editors, editors in chief, and an internet coordinator). For a full list of participating online news professionals please refer to Appendix A-1.

## **Interview distribution**

The online interview was made available on the web through a website designed for researchers to create and distribute online questionnaires. This means that respondents were free to complete the interview at a time and location of their convenience, as long as they had a pc, laptop or tablet with Internet access at their disposal. However, the interview needed to be completed in one session, as there was no possibility to close the browser and continue later.

The online news professionals who were approached to take part in the online interviews

## **3.3 Research results**

The most important results from the online interviews are summarized in tables 8, 9 and 10 on the next pages. Data analysis was done using Nvivo 10 for qualitative data and SPSS 20 for quantitative data. For the purpose of reporting, results were translated from Dutch to English after analysis.

Table 8 on the next page shows the extent to which social media functionalities can provide a useful addition to online news services' websites and applications, according to the respondents. Respondents were presented with a short description of each social media functionality and were asked which of the functionalities can provide a useful addition to an online news services' websites and applications. The results show that a majority of participating

online news professionals think that every social media functionality we have identified can provide a useful addition to online news. Especially the functionalities 'connect', 'share', 'comment', and 'discussion' as respondents unanimously indicated these functionalities to be able to provide a useful addition to online news.

Social media functionality	Can provide a useful addition to an online news services' websites and applications	
	Yes	No
Connect	9 (100%)	0 (0%)
Share	9 (100%)	0 (0%)
Create	8 (88,9%)	1 (11,1%)
Comment	9 (100%)	0 (0%)
Discussion	9 (100%)	0 (0%)
Vote	8 (88,9%)	1 (11,1%)
Tag	8 (88,9%)	1 (11,1%)
Other	1 (11,1%)	8 (88,9%)

Table 8: The extent to which social media functionalities can provide a useful addition to online news.

A single respondent reported an additional functionality, which was described as 'logging in using a social media account'. Because it was mentioned only once, and logging in can be viewed as a means to connect or to a means to be able to use various other social media functionalities (e.g. to share a story you have to be logged in to Facebook or Twitter), the suggested addition of a 'logging in' social media functionality isn't included in the actual study.

Social media functionality	User needs associated with media use			
	Information	Interaction	Entertainment	Identity
Connect	7 (77,8%)	8 (88,9%)	2 (22,2%)	5 (55,6%)
Share	6 (66,6%)	9 (100%)	2 (22,2%)	6 (66,7%)
Create	7 (77,8%)	8 (88,9%)	7 (77,8%)	6 (66,7%)
Comment	1 (11,1%)	9 (100%)	3 (33,3%)	8 (88,9%)
Discussion	4 (44,4%)	9 (100%)	4 (44,4%)	8 (88,9%)
Vote	4 (44,4%)	9 (100%)	3 (33,3%)	7 (77,8%)
Tag	5 (55,6%)	6 (66,7%)	2 (22,2%)	4 (44,4%)

Table 9: User needs associated with social media functionality use.

Table 9 shows the expected user needs associated with each social media functionality, according to participating online news professionals. Respondents were presented with a description of the four user needs associated with media use, and were asked to indicate which needs play a role when a user engages with each social media functionality. The table contents

show that online news professionals think that the identified social media functionalities vary in the user needs associated with their use. For example, a need for information is strongly associated with the 'connect' and 'create' functionalities. A need for identity, however, is strongly associated with the 'comment' and 'discussion' functionalities. The need for interaction is strongly associated with most of the social media functionalities, while a need for entertainment isn't associated strongly with many of the social media functionalities.

Table 10 on the next page shows the organizational objectives associated with each social media functionality according to the respondents, as well as KPIs (Key Performance Indicators) associated with those objectives. First, respondents were asked which (journalistic) organizational objective(s) each social media functionality helps to accomplish. In a second question, respondents were asked to indicate how the success of implemented social media functionalities is being measured. Because the questions were open ended, a single respondent had the option to provide multiple answers. The numbers behind each answer in table 10 indicate how many individual respondents have given that specific answer. Answers to the question about organizational objectives associated with social media functionalities were provided by eight of the respondents, as one of the respondents left the fields blank. Answers to the question about KPIs were also provided by eight of the respondents, as one of the respondents left the fields blank. Of the eight respondents who did answer the question, one indicated that in his/her organization objectives aren't being measured, one respondent answered that objective measurement is a matter for web-editors and management, and one respondent answered every sub-question with 'number of likes, friends, followers and comments'.

As Table 10 shows, the respondents have a relatively clear idea of the organizational objectives the social media functionalities can help accomplish. For each social media functionality, the majority of the respondents agrees on at least one organizational objective. According to the respondents, the *connect* functionality can help to meet organizational objectives such as 'increasing network and reach' and 'enhance customer loyalty'. The *share* social media functionality can also be used to increase the reach of an online newspaper, while the *create* functionality can help to provide input from readers. *Comment* and *discussion* functionalities can be helpful to give the audience a way to voice their opinion and facilitate interaction. The *vote* functionality also gives the audience a way to voice their opinion, and the *tag* functionality can help to increase the findability of articles and other content. Note that the respondents don't mention some of the organizational objectives described in chapter 2.3.3a, and that some of the objectives show a similarity in subject matter, although they may be formulated differently.

When it comes to KPIs associated with the organizational objectives described above, the respondents aren't as consentient. Most KPIs only get mentioned by one or two respondents. The only KPI a majority of respondents linked to a goal is the number of comments and votes to



measure the level to which the audience voices their opinion. Other KPIs associated with various objectives include 'number of followers / fans', 'pageviews', 'unique visitors' and 'social media

Social media functionality	Organizational goal	Indicator
Connect	<ul style="list-style-type: none"> <li>• Network / reach (4)</li> <li>• Customer loyalty (3)</li> <li>• Sources (1)</li> </ul>	<ul style="list-style-type: none"> <li>• # followers / fans (3)</li> <li>• Social media traffic (1)</li> <li>• Pageviews (1)</li> <li>• Unique visitors (1)</li> </ul>
Share	<ul style="list-style-type: none"> <li>• Increase reach (6)</li> <li>• Information supply (1)</li> </ul>	<ul style="list-style-type: none"> <li>• # shares / retweets (2)</li> <li>• Social media traffic (1)</li> <li>• Pageviews (1)</li> <li>• # followers likes (1)</li> <li>• Unique visitors (1)</li> </ul>
Create	<ul style="list-style-type: none"> <li>• Give audience voice (2)</li> <li>• Provide input (7)</li> <li>• News distribution (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Pageviews (2)</li> <li>• Unique visits (1)</li> <li>• Participation on sm (1)</li> <li>• # followers / likes (1)</li> </ul>
Comment	<ul style="list-style-type: none"> <li>• Give audience voice (5)</li> <li>• Provide input (2)</li> <li>• Interaction (2)</li> <li>• Finetune content (1)</li> </ul>	<ul style="list-style-type: none"> <li>• # of comments (4)</li> <li>• # followers / likes (1)</li> <li>• # of mentions (2)</li> </ul>
Discussion	<ul style="list-style-type: none"> <li>• Give audience voice (4)</li> <li>• Provide input (2)</li> <li>• Interaction (3)</li> <li>• Deal with critique (1)</li> </ul>	<ul style="list-style-type: none"> <li>• # of comments (5)</li> <li>• # followers / likes (1)</li> <li>• # of mentions (2)</li> </ul>
Vote	<ul style="list-style-type: none"> <li>• Give audience voice (4)</li> <li>• News (1)</li> <li>• Moderation (1)</li> <li>• Interaction (1)</li> </ul>	<ul style="list-style-type: none"> <li>• # of votes (3)</li> </ul>
Tag	<ul style="list-style-type: none"> <li>• Findability (4)</li> <li>• Connect (2)</li> <li>• Share (1)</li> <li>• Interpret (1)</li> <li>• Sort (1)</li> </ul>	<ul style="list-style-type: none"> <li>• Measure tags (2)</li> <li>• Measure views (1)</li> </ul>

Table 9: Organizational goals and KPIs associated with social media functionalities.

traffic'. These KPIs all get mentioned by only one or two respondents and consist of rather basic metrics. The extent to which these metrics can be used to actually measure goal performance is questionable. For instance, what does the number of pageviews or unique visitors tell us about the extent to which social media functionalities like *connect* and *create* are successful?

### 3.4 Conclusions

The interviews with online news professionals aimed to answer the question which social media news interaction patterns can be distinguished. This is achieved in three steps: (1) identification of relevant social media functionalities in the online news practice, (2) identification of associated social media publisher goals and measurement, and (3) identification of social media user goals.

The results of the preliminary research show that the participating online news professionals think that all social media functionalities, as described in chapter 2.4.3, can provide a useful addition to online news services' websites and applications. The participating online news professionals rejected no social media functionalities, nor were any additional social media functionalities suggested.

Online news professionals have an idea of the objectives associated with social media use from both the user perspective and the news organization perspective. However, when it comes to measuring the performance and effects of social media efforts respondents indicate that performance isn't being measured, that they don't know about it, or that the measures being used are rather basic. It seems there is an opportunity for online newspapers to increase online success by developing their social media strategy further and by keeping track of their effort's performance and success by developing well thought out measures and metrics.

The data summarized in tables 9 and 10 shows the ways in which social media functionalities can provide a useful addition to online news services' websites and applications from both a user and organization point of view. Using the data, a number of social media news interaction patterns can be distinguished and formulated. Single social media functionalities can form the basis for multiple patterns. For instance, an organizational objective associated with the functionality *share* is to increase reach. This can be interpreted in two ways, (1) an increase in potential reach via social media, or (2) an increase in actual reach through rising website traffic. These two goals are associated with very different kinds of social media use. Users establish an increase in potential reach by actively sharing content through social media, while an increase in actual reach is established by users the content is shared to. They are the ones clicking links and thus generating extra traffic to the website. This results in two separate patterns: *sharing content with* and *getting content shared to*. The same is the case for the *comment*, *discussion* and *tag* functionalities. There are users actively posting comments, engaging in discussions and tagging content, and at the same time there are users who aren't actively contributing, but who

are reading comments and discussions and navigate through content using tags. These differences are reflected in the social media news interaction patterns that have been developed and are listed on the next pages and in table 11 below.

User objectives / Publisher objectives	Information	Interaction	Entertainment / escape	Identity
Enhance news distribution / Increase reach	<i>Connect</i> <i>Shared to</i>	<i>Connect</i> <i>Share with</i>		<i>Share with</i> <i>Shared to</i>
Increase customer loyalty	<i>Connect</i>	<i>Connect</i>		
Facilitate interaction / relational exchanges	<i>Read comment</i> <i>Read discussion</i>	<i>Comment</i> <i>Discussion</i>		<i>Comment</i> <i>Read comment</i> <i>Discussion</i> <i>Read discussion</i>
Provide input / co- creation	<i>Create</i>	<i>Create</i> <i>Rate / vote</i>	<i>Create</i>	<i>Create</i> <i>Rate / vote</i>
Enhance findability	<i>Browse using tags</i>	<i>Tag</i>		

Table 11: Descriptive social media news interaction pattern model

Table 11 shows the descriptive model for social media news interaction patterns. The model describes which social media interactions link specific social media user objectives to specific social media publisher objectives. The *connect* interaction, for example, connects the social media user objectives *information* and *interaction* to social media publisher objectives *enhance news distribution* and *increase customer loyalty*. More detailed descriptions of the social media news interaction patterns that were distinguished can be found below.

### Connect

The ‘connect’ interaction means that you engage in, and make explicit, a relationship with another user on social media. Examples of this interaction in online news include ‘liking’ a news organizations’ Facebook page, following a journalist or news organization on Twitter, and subscribing to a news organizations’ YouTube-channel. This interaction links the user objectives *information* and *interaction* to the publisher objectives to *enhance news distribution* and to *increase customer loyalty*.

### Share content

This interaction is about sharing content (e.g. a link, video or image) with your friends or followers on social media. You can share content directly, without adding anything, or you can add a comment. Examples of this interaction in online news include sharing or liking the link to a news article on Facebook, and sharing or retweeting the link to a news article on Twitter. Many news websites have buttons to make sharing on social media easier. This interaction links the user objectives *interaction* and *identity* to the publisher objective to *enhance news distribution*.

### Visiting shared content

This interaction is about visiting content that is shared to you by one of your friends or someone you follow on social media. An example of visiting shared content in online news is clicking the link to a news article shared to you by someone else on Facebook or Twitter. This interaction links the user objectives *information* and *identity* to the publisher objective to *enhance news distribution*.

### Creating content

The interaction 'content creation' is about placing new sharable content, such as text, photos or videos. The emphasis here is on the initiative. Examples of this interaction in online news include placing an @ mention to a journalist or news organization on Twitter, posting content on the Facebook page of a news organization, sending photos or video to a (web) editor, or starting a new forum discussion. This interaction links the user objectives *information*, *interaction*, *entertainment / escape*, and *identity* to the publisher objective to *let users provide input / co-creation*.

### Commenting

This interaction is about leaving a message in response to a particular piece of content. Commenting differs from content creation in the following way. Creating content delivers new, sharable content. Commenting makes this content richer, but the comment is never shareable on its own without sharing the original content. Examples of this interaction in online news include commenting on an article, posting content on the Facebook page of a news organization, responding to a tweet from a journalist or news organization on Twitter, or leaving a (video) comment on a YouTube video. This interaction links the user objectives *interaction* and *identity* to the publisher objectives to *facilitate interaction / relational exchanges*.

### Reading comments

This interaction is about reading comments left by others in response to a particular piece of content. Examples of this interaction in online news include reading comments on an article, or reading comments on a news organization's Facebook page. This interaction links the user

objectives *information* and *identity* to the publisher objective to *facilitate interaction / relational exchanges*.

### Conversing

This interaction means that there is a conversation going on in the comment section. Just as is the case with the interaction 'commenting', a reaction is posted. The difference is that in the interaction 'conversing' a response is given to a previous response, and not to the original content, as is the case with 'comment'. Examples of this interaction in online news include participating in a discussion in the comment section of an article, or to exchange multiple @ mention messages with a journalist or news organization through Twitter. This interaction links the user objectives *interaction* and *identity* to the publisher objectives to *facilitate interaction / relational exchanges*.

### Reading conversations

This interaction is about reading conversations or threads by others, without taking part in it. Examples of this interaction in online news include reading a discussion in the comments section of an article, or reading a conversation that someone else had with a journalist or news organization through Twitter. This interaction links the user objectives *information* and *identity* to the publisher objective to *facilitate interaction / relational exchanges*.

### Rate / vote

This interaction provides the possibility to rate content, products and profiles. Examples of this interaction in online news include a + / - rating system and liking comments in Disqus. This interaction links the user objectives *interaction* and *identity* to the publisher objective to *let users provide input / co-creation*.

### Tag

This interaction describes various applications of tagging on social platforms. Through tagging, you can add descriptive keywords to specific content, making a descriptive "tag cloud". Examples of online news include tags to an item, and the use of Twitter hashtags in the (re) Tweeting news related content. This interaction links the user objective *interaction* to the publisher objective to *enhance findability*.

### Browse using tags

This interaction describes the use of tags to find content on a specific topic. By browsing through the use of tags you can view all messages related to a topic. Examples of this interaction in online news include a clicking a tag used with an article, and browsing Twitter

using hashtags to find tweets on a specific newsrelated topic. This interaction links the user objective *information* to the publisher objective to *enhance findability*.

## Chapter 4. Social media news interaction pattern value

The literature study in chapter 2 provides insight into how the concept of *social media* is being defined and explained within the social sciences. It shows that social media can be valuable to organizations as well as individuals or consumers. Later in chapter 2, insight was gained into both organizational- and user goals for using social media, and the concept of *social media news interaction patterns*.

Using the insights from chapter 2 in combination with social media functionalities identified in paragraph 2.4.3 as the basis for an online interview with online news professionals, chapter 3 provides a very interesting look into the everyday practical side of social media functionalities in the context of online news. It provides insight not only into the objectives associated with social media use, but based on the online interview results, in paragraph 3.4 the descriptive model for social media news interaction patterns was developed.

In this chapter the research design and results for the exploratory study of social media news interaction pattern value are discussed. The exploratory study will focus on further testing of the conceptual model described in paragraph 2.7 and the descriptive model developed in paragraph 3.4, as well as describing the way social media news interaction patterns create value. The study will be conducted in two parts. Paragraph 4.1 describes the publisher value study, which is conducted to answer the question of what the value of social media news interaction patterns is for an online news publisher. Paragraph 4.2 describes the user value study, which is conducted to answer the question of what the value of social media news interaction patterns is for an online news user.

### 4.1 Study 1: Publisher value of social media news interaction patterns

To examine the value of social media news interaction patterns for an online news publisher, five case studies were conducted. A case study is a detailed and structured analysis of an event, taking place within its natural context (Baxter & Jack, 2008). In a case study, a variety of documents can be used for analysis, including (web) text, audio, video, and observations (Flyvbjerg, 2011). Case studies may be of descriptive or explanatory nature and may take the form of a single case study, or multiple case studies.

#### 4.1.1 Research objectives

Multiple case studies are used to conduct research into the value social media news interaction patterns have for online news publishers. The case studies serve three objectives: (1) to analyze the extent to which social media news interaction patterns can be observed in the practical context of an online newspaper, (2) to analyze whether publisher objectives associated with the social media news interaction patterns can be measured using the key performance indicators (KPIs), and (3) to analyze the added value of social media news interaction patterns for an online news service.

#### 4.1.2 Research method

Five cases were examined on the aspects of social media news interaction pattern observability, measurability, and added value. The five cases all covered a different category of news. Case sources consisted of three news articles per case: (1) a news article on regional news, (2) a news article on national news, and (3) a news article on international news. First, the analysis form was developed (see Appendix B-1). Then, case sources were selected. Because social media news interaction patterns take place on the Internet, measuring the publisher value of social media news interaction patterns requires insight into social media and web-analytics. For this study web-analytics data from the regional Dutch newspaper 'Twentsche Courant Tubantia' had been made available. Therefore, all case sources included in the case studies consist of news articles from the TC Tubantia website. For their web-metrics, TC Tubantia uses a web-analytics package by ComScore. Additional social media measurement was done using the Dutch social media monitoring tool Coosto. Using these data sources, observability and measurability of social media news interaction patterns were analyzed. See Appendix B-2 to B-5 for a detailed elaboration of the analysis.

#### Analysis form development

The first step into the publisher value study was developing the analysis form. The analysis form used in the publisher value study can be found in Appendix B-1. The analysis form has the following structure: Social media news interaction pattern, Organizational objective(s), and key performance indicators (KPI).

In the analysis form, publisher objectives (as identified by online news professionals in the preliminary study) are included for each social media news interaction pattern. For each publisher objective a number of KPIs are included in the form. Because KPI input in the preliminary study was poor, a selection of additional KPIs, as described in paragraph 2.3.3a, was added. For each KPI a description is given in terms of data origin (publicly observable web-data / ComScore web-data / Coosto data), the type of data, and unique data features.

#### Case and case source selection

After the analysis form development case and source selection took place. Five separate cases in the field of online news were selected. Each case represented a different category of news: articles: (1) political news, (2), societal news, (3) economical news, (4) sports news, and (5) entertainment / show news. For each case three case sources were selected: (1) a news article on regional news, (2) a news article on national news, and (3) a news article on international news. News articles had to meet the following selection criteria:

- The news article needed to be first published in August 2012
- The news article contents needed to be at least two paragraphs



- The news article subject couldn't be too specific

#### *Case 1: Political news*

The first case study examines social media news interaction patterns in the context of political news. Three sources from the TC Tubantia website were selected. The article covering a regional news story was published on August 24th and was about a local political party called 'Pro Hengelo' questioning the City Councils decision to take an old bathing house its monumental status. By doing so, demolishing the bathing house became a lot easier legally. The article covering a national political news story was published on August 28th and informs about Dutch Socialist Party leader Marijnissen claiming that his party could potentially get 45 senate seats in the next national elections on September 12th. The article covering international political news was first published on August 28th and is about that the Republican Party Congress in Tampa started. During this congress, Mitt Romney will be officially presented as Presidential candidate for the Republicans.

#### *Case 2: Societal news*

The second case study examines social media news interaction patterns in the context of societal news. Three sources from the TC Tubantia website were selected. The article covering a regional news story was published on August 26th and was about the city of Enschede going to place a total of 1.495 solar panels on the roofs of public buildings. The solar panels aren't placed only to generate energy, but also to reduce CO-2 levels in the city. The article covering a national societal news story was first published on August 28th and informs about how in a years time a total of 420 labor migrants were deported because they had engaged in criminal activity. The article covering international societal news was published on August 28th and informs on a story about Marc Dutroux's ex-wife Michelle Martin, who is about to be released from prison. She plans to join a monastery.

#### *Case 3: Economic news*

The third case study examines social media news interaction patterns in the context of economic news. Three sources from the TC Tubantia website were selected. The article covering a regional news story was first published on August 28th and was about a study on the subject of commuting showing that the region of Twente is self-sufficient and and rather closed when it comes to employment. The article covering national economic news informed about business website Z24 predicting a 0,7 percent growth of the Dutch economy in September. It would be the first time in 2012 that the Dutch economy shows growth. The article covering an international economic news story was published on August 27th and reports on how documents from a court of law show that technology company Apple wants a temporary ban on eight of its competitor's Samsung products in the United States.

*Case 4: Sports news*

The fourth case study examines social media news interaction patterns in the context of sports news. Three sources from the TC Tubantia website were selected. The article covering a regional news story was published on August 27th and was about the Spanish cyclist Samuel Sanches, who would not be riding Almelo's Profronde due to a falling incident in a course in France. The article covering a national news story was published on August 2nd and informed on Dutch swimmer Kromowidjojo, who won a golden medal at the London Olympics, being happy about her race even though it wasn't perfect. The article covering an international news story was published on August 23rd and informed about Joaquin Rodrigues winning the sixth stage of the Vuelta, strengthening his position as course leader.

*Case 5: Entertainment / show news*

The fifth case study examines social media news interaction patterns in the context of entertainment / show news. Three sources from the TC Tubantia website were selected. The article covering a regional news story was published on August 25th and was about Theun 'Tremelo Theun' de Jong, a local man who earned third place at the world championship air guitar playing in Oulo, Finland. The article covering a national entertainment / show news story was published on August 28th and informed about Dutch television channel SBS being very happy with viewing numbers for their new show 'Sterren springen'. The article covering an international news story was published on August 27th and was about The Daily Star writing about comedian and actor Russel Brand who fancies Spice Girl Geri Halliwell.

**Case analysis**

The data and case sources forming the bases of the five publisher value studies have been described in the previous section of the publisher value study research method. The observable web data is publicly accessible, as is the social media data gathered with Coosto. ComScore web-analytics data such as the number of unique browsers per article, and number of browsers referred from social media however, isn't publicly accessible.

Using the observable web data, Coosto data and ComScore data, cases were analyzed on the matters of observability, measurability and added value. Each case was analyzed from a regional, national and international perspective. Data was gathered in a week's period starting from the day the article was first published. In both Coosto and ComScore data is available retroactively, which in practice means that a desired period of time could be selected for each individual article. Observable data from TC Tubantia's website that was used in the analysis could be dated by examining the date and time displayed on the webpage, for instance about when a comment was posted.

### 4.1.3 Publisher value study results

The publisher value study was conducted on the website of Dutch regional newspaper Twentsche Courant Tubantia. Five case studies were conducted in various fields of online news reporting. Case studies were conducted in the following fields: (1) political news, (2) societal news, (3) economical news, (4) sports news, and (5) entertainment / show news. All eleven social media news interaction patterns described in paragraph 3.4 were included in the publisher value study, although some patterns couldn't be measured. For instance, the *connect* pattern isn't applicable to these case studies because the pattern isn't connected to any individual news articles. The *connect* pattern takes place on platforms outside of news website, which makes it hard to connect it to specific articles on the news site. Furthermore, private social media account- and page data wasn't available for this study. Another pattern that couldn't be measured was the *create* pattern, because the data that was available for the study didn't include any figures about user generated content (UGC) creation attempts and amounts of UGC received. The patterns dealing with *rating* and *tagging* activities couldn't be measured because these functionalities aren't currently being offered on the TC Tubantia website. For the case study analysis forms used in the publisher value study, please refer to Appendix B.

#### 4.1.3a Political news case study results

The case sources for the political news case study show that the regional news article was the most popular article by far in terms of page views and unique browsers. It is the only article in this category that was shared. The numbers used to analyze the *share* patterns show that a relatively low amount of shares on social media (less than 1% of the people who read the article shared it on social media) provided a significant increase in potential reach. However, just 17 people (around 2% of all the people who read the article) were referred to the article via social media. However, out of the group of people referred from social media 29% was a new visitor, against 23% new visitors overall. This suggests that shared content on social media refers a relatively small group of people to the website, but that that group does have a higher percentage of new visitors.

All three articles in the political news category received comments from readers. Different people posted most comments, but there was one poster who commented multiple times on the regional news article and there were two posters who commented multiple times on the national news article. Comparing the various ratios that were computed, it seems that interaction among readers was highest in the national news article, but compared to the regional news article despite higher interaction levels, individual readers viewed the article the same number of times (average 1,6).

	Regional news	National news	International news
Number of shares	7	-	-
Potential reach	11.191	-	-
Browsers via s.m.	17	-	-
New browsers via s.m.	29%	-	-
New browsers total	23%	46%	20%

Table 12: Share patterns KPIs for political news cases

The international news article, which had just one comment and didn't have any conversations going on in the comment section, in contrast was viewed only 1,3 times by each browser on average. This suggests that high interaction ratio figures aren't the most important thing when it comes to enhancing the number of times a reader views an individual article. Instead, it is important to have multiple comments posted in response to an article and to have conversations going on in the article's comment section.

	Regional news	National news	International news
Number of comments	15	20	1
Unique posters	14	17	1
Avg. comment length	3,5	4,2	6
Number of conversation	3	6	-
Avg. conversation length	1 – 2	1	-

Table 13: Comment and discussion patterns KPIs for political news cases

#### 4.1.3b Societal news case study results

The case sources for the societal news case study show that the regional news article was the most popular article by far in terms of page views and unique browsers. It is the only article in this category that was shared on social media. The numbers used to analyze the *share* patterns show that a relatively small percentage of shares on social media (around 4% of the people who read the article shared it on social media) provided a significant increase in potential reach. Furthermore, 28 people (around 8% of all the people who read the article) were referred to the article via social media. Out of the group of people referred from social media 57% was a new visitor, against 37% new visitors overall. This suggests that, similar to the case of political news, the group of people referred to the website via social media, contains a higher percentage of new visitors than the overall group of visitors.

	Regional news	National news	International news
Number of shares	14	-	-
Potential reach	18.518	-	-
Browsers via s.m.	28	-	-
New browsers via s.m.	57%	-	-
New browsers total	37%	23%	50%

Table 14: Share patterns KPIs for societal news cases

In the societal news category all three news articles received comments from readers. Most comments were posted by different readers, although the regional and national news articles both had two posters who commented multiple times, and the international article had four posters who commented multiple times. Interaction ratios were highest among users in the national news article, but compared to the regional news article users didn't return to view the article a second (or third) time nearly as much.

	Regional news	National news	International news
Number of comments	20	37	28
Unique posters	14	34	22
Avg. comment length	4,5	4,1	4,1
Number of conversation	7	7	12
Avg. conversation length	1 – 3	1 – 2	1 – 3

Table 15: Comment and discussion patterns KPIs for societal news cases

#### 4.1.3c Economical news case study results

The case sources for the economical news case study show that the regional news article was the most popular article by far in terms of page views and unique browsers. It is the only article in this category that was shared on social media. The numbers used to analyze the *share* patterns show that a relatively small percentage of shares on social media (around 0,5% of the people who read the article shared it on social media) provided a significant increase in potential reach. Furthermore, 28 people (around 2% of all the people who read the article) were referred to the article via social media. Out of the group of people referred from social media 37% was a new visitor, against 23% new visitors overall. This suggests that, similar to the cases of political

and societal news, the group of people referred to the website via social media, contains a higher percentage of new visitors than the overall group of visitors.

	Regional news	National news	International news
Number of shares	7	-	-
Potential reach	17.488	-	-
Browsers via s.m.	28	-	-
New browsers via s.m.	37%	-	-
New browsers total	23%	12%	31%

Table 16: Share patterns KPIs for economical news cases

In the economic news category the articles reporting on regional and national economic news received comments from readers. On both articles, all comments were placed by different readers. Interaction ratios were highest among users in the national news article, but compared to the regional news article users didn't return to view the article a second (or third) time more often, as both articles scored an impressions to unique browsers ratio of 1,2.

	Regional news	National news	International news
Number of comments	8	8	-
Unique posters	8	8	-
Avg. comment length	5,5	2,1	-

Table 17: Comment pattern KPIs for economical news cases

#### 4.1.3d Sports news case study results

The case sources for the sports news case study show that, in sharp contrast to the other news categories being examined in the case studies, it wasn't the regional news article which was the most popular article in terms of page views and unique browsers. The most popular sports news article was the article covering national news, followed by the article covering international news. The sports article covering regional news was the least popular of the three in terms of page views and unique browsers. All three articles were shared on social media, but the national news article was the only one publicly shared. The social media data measured by Coosto only includes public social media data, so *share* patterns couldn't be measured completely in the case of the regional and international news articles.

The numbers that were available to analyze the *share* patterns show that a relatively small percentage of shares on social media (around 1,3% of the people who read the article shared it on social media) provided a significant increase in potential reach compared to actual reach.

Visitor percentages referred to the articles from social media were relatively low (between 1 and 2,5% of all the people who read the article). Because just one visitor was referred to each article from social media, new versus returning visitor ratios aren't reliable enough to report.

In contrast to the articles reporting on political, societal and economic news, the articles in the sports category didn't receive any comments from readers. A possible explanation for this is the fact that commenting on sports articles requires an account, while commenting on articles in the other categories does not. This way, having to register or log in may become an obstacle for leaving a comment.

#### 4.1.3e Entertainment / show news case study results

The case sources for the entertainment / show news case study show that the regional news article was the most popular article by far in terms of page views and unique browsers. It was the only article that was shared on social media. The numbers used to analyze the *share* patterns show that a relatively small percentage of shares on social media (around 0,5% of the people who read the article shared it on social media) provided a significant increase in potential reach. Furthermore, 24 people (around 2% of all the people who read the article) were referred to the article via social media. Out of the group of people referred from social media 37% was a new visitor, against 23% new visitors overall. This suggests that, similar to all other cases examined, the group of people referred to the website via social media, contains a higher percentage of new visitors than the overall group of visitors.

	Regional news	National news	International news
Number of shares	5	-	-
Potential reach	11.510	-	-
Browsers via s.m.	24	-	-
New browsers via s.m.	37%	-	-
New browsers total	23%	60%	28%

Table 18: Share patterns KPIs for entertainment news cases

The article reporting regional entertainment / show news was the only article in the category that received comments. Different readers posted most comments, although there was one poster who commented multiple times. Compared to the national and international news article individual readers viewed the regional news article more (1,2 and 1,4 times per reader in the case of national and international news respectively, while this ratio for the regional news article was 1,7). This suggests that it is important to have comments posted in response to an article and to have conversations going on in the article's comment section in order to increase the number of readers who visit the same page for a second (or third) time.

	Regional news	National news	International news
Number of comments	20	-	-
Unique posters	18	-	-
Avg. comment length	2,7	-	-
Number of conversation	5	-	-
Avg. conversation length	1	-	-

Table 19: Comment and discussion patterns KPIs for entertainment news cases



## 4.2 Study 2: User value of social media news interaction patterns

To study the value of social media news interaction patterns for the user, an online questionnaire was conducted. Questionnaires are a form of quantitative research and can be used to gather data from a large group of people and to study differences between groups. Usually, questionnaires consist of closed-ended questions in the form of multiple-choice or Likert scales. Questionnaires can be held on paper, through telephone, online, or a combination of those. In this study online questionnaires were used because the target group (people who use social media news interaction patterns) is most likely to be found online.

### 4.2.1 Research objectives

This research serves three objectives: (1) to gain insight into the extent to which social media news interaction patterns are used by online news readers, (2) to gain insight into the user motives and associated needs for using social media news interaction patterns, and (3) to analyze the extent to which *uses and gratifications* dimensions are fit to explain the uses of social media news interaction patterns among users.

### 4.2.2 Research method

In paragraph 2.3.3b objectives for media use are discussed. Four needs associated with media use are identified: (1) information needs, (2) interaction, (3) entertainment / escape, and (4) identity. In paragraph 3.4 a total of eleven separate social media news interaction patterns were identified through the preliminary study. These patterns cover a range of social media functionalities used for interaction, such as connecting with other users, creating and sharing content, posting comments, and rating and tagging content. The online questionnaire was used to examine which user needs are particularly associated with using each social media news interaction pattern.

### Scale development

There has been extensive research into media uses and gratifications over the last four decades. Paragraph 2.3.3b gives an overview of the origin of uses and gratifications theory and how it has been applied to new media, including the Internet. An overview of the four needs central in large numbers of uses and gratifications research, and associated motivations for using the Internet and social media can be found in table 5. This table forms the basis for scale development in this study.

One scale that had to be fit to be applied to all eleven social media news interaction patterns was developed. This means that the scale needed to be broad enough so that the various interactions could be tested. Table 5 in paragraph 2.3.3b was taken as a starting point for scale development because it provides an overview of uses and gratifications dimensions and motivations in the context of the Internet and social media. A number of motivations were slightly

modified to fit the context of online news, some motivations were excluded, and some additional motivations based on results of earlier uses and gratifications research in the field of social media (Bonds-Raacke & Raacke, 2010; Johnson & Yang, 2009; Kaye, 2010; Quan-Haase & Young, 2011; Raacke & Bonds-Raacke, 2008; Smock et al, 2011) were added to the scale. For the scale used in the online questionnaire please refer to Appendix C.

### **Questionnaire distribution**

The online questionnaire was made available on the web through a website designed for researchers to create and distribute online questionnaires. This means that respondents were free to complete the online questionnaire at a time and location of their convenience, as long as they had a pc, laptop or tablet with Internet access at their disposal. However, the online questionnaire needed to be completed in one session, as there was no possibility to close the browser and continue later.

The online questionnaire was developed using the scale resulting from the process described above. Upon clicking the link to the questionnaire, first, respondents would be presented with a short welcome / introduction text. Then respondents were asked to fill in their sex, age, online news visit frequency, and on which social media they are active at least once a week. Clicking through to the next page of the questionnaire, respondents were presented with the first social media news interaction pattern. After a short description of the pattern respondents were asked how frequently they use the pattern in question (never – rarely – occasionally – regularly – often). In case their answer was never they could progress to the next pattern, otherwise they would have to indicate their motives for using the pattern through the uses and gratifications scale. Scale items were presented in the form of statements respondents could rate on a 5-point Likert scale between totally disagree and totally agree. This process was the same for all eleven patterns.

### **Respondents**

For the online questionnaire respondents were approached via social media and through e-mail. In a first effort to get respondents for the online questionnaire, a link to the online questionnaire along with a short description and an indication of the time it would take to participate was posted on Facebook and Twitter with the request to share and retweet the link. The link was posted several times over a period of 5 days. In addition the link and short text were posted in several Facebook groups and on a number of discussion boards. A second effort to get respondents for the online questionnaire was a more personal one. People were sent an email with the request to participate and to forward the e-mail to friends and / or family who would possibly like to participate. The online questionnaire was online for a month, starting half August. The first effort to get respondents was made in the first week the online questionnaire was

online. The second effort to get respondents was made two weeks into the one-month period, around the start of September.

### 4.2.3 User value study results

After the one-month period in which the online questionnaire could be filled in had passed, the data-sheet containing raw data was downloaded, and processed and analyzed using SPSS 20. This paragraph presents an overview of the results. First, paragraph 4.2.3a provides insight into the extent to which social media news interaction patterns are used by online news readers. Then, paragraph 4.2.3b provides insight into the user motives and associated needs for using social media news interaction patterns. Finally, in paragraph 4.2.3c, the extents to which *uses and gratifications* dimensions are fit to explain the uses of social media news interaction patterns among users are analyzed.

#### 4.2.3a Demographics and pattern use

141 respondents completed the online questionnaire. Of those 141 respondents, 73 (51,8%) were male, 63 (44,7%) were female, and 5 (3,5%) didn't fill in their sex. The group of respondents was relatively young, with 77,1% of respondents under 30, and 92,9% under 40. A vast majority (78%) of respondents indicated to visit an online news source at least daily, over half of the respondents (53,2%) indicated to visit an online news source multiple times a day.

Many respondents indicated to be active on multiple social media at least once a week. The most used social media application among the respondents is Facebook (92,9% of respondents active), followed by YouTube (56% of respondents active) and Twitter (36% of respondents active). Other social media platforms that are used at least once a week are Google+ (8,5% of respondents active), Pinterest (7,1% of respondents active), Flickr (5,7% of respondents active), Hyves (3,5% of respondents active), and Digg (2,8% of respondents active). 4,3% of the respondents indicated not to be active on any of these social media platforms at least once a week.

There was no social media news interaction pattern that wasn't used by any of the respondents, although some interaction patterns weren't used as much as others. 61,7% of the respondents indicated that they use the *connect* pattern to connect with journalists or news services online. Just as many respondents use the share pattern. 61,7% of the respondents indicated to share news stories to their friends and followers on social media. 73% of the respondents indicated that they visit news stories shared to them by their friends or people they follow. Creating content isn't something many of the respondents do. 15,6% of the respondents indicates to create news related content. 24% of the respondents indicated to post comments in reaction to a news story, while 75,1% of the respondents say that they read those comments. 21,9% of the respondents indicated to engage in conversation or discussion, while 62,5% of the respondents says that they read those conversations and/or discussions, 17,1% of the respondents indicated to rate news

related content, 10% of the respondents indicated to tag news related content, and 25,6% of the respondents indicated to browse news related content using those tags.

Pattern / Frequency	Never	Rarely	Sometimes	Regularly	Often
Connect	52 (36,9%)	23 (16,3%)	26 (18,4%)	19 (13,5%)	19 (13,5%)
Share	53 (37,6%)	22 (15,6%)	31 (22,0%)	22 (15,6%)	12 (8,5%)
Shared to	36 (25,5%)	9 (6,4%)	46 (32,6%)	36 (25,5%)	12 (8,5%)
Create	116 (82,3%)	7 (5,0%)	5 (3,5%)	3 (2,1%)	7 (5,0%)
Comment	103 (73,0%)	13 (9,2%)	14 (9,9%)	4 (2,8%)	3 (2,1%)
Read Comment	34 (24,1%)	5 (3,5%)	45 (31,9%)	37 (26,2%)	19 (13,5%)
Conversation	109 (77,3%)	11 (7,8%)	14 (9,9%)	3 (2,1%)	3 (2,1%)
Read conversation	51 (36,2%)	23 (16,3%)	40 (28,4%)	17 (12,1%)	8 (5,7%)
Rate / vote	116 (82,3%)	6 (4,3%)	10 (7,1%)	6 (4,3%)	2 (1,4%)
Tag	127 (90,1%)	6 (4,3%)	6 (4,3%)	0 (0,0%)	2 (1,4%)
Browse tags	105 (74,5%)	16 (11,3%)	6 (4,3%)	8 (5,7%)	6 (4,3%)

Table 20: Use frequencies for each social media news interaction pattern

All in all, the group of respondents is a relatively young group of online news savvy people, a vast majority of which actively uses one or more social media applications. Furthermore, the group of respondents uses those social media applications in relation to online news to varying extents.

Using nonparametric Spearman's rho correlations tests, social media news interaction pattern use related to specific social media platform use was analyzed. The group of respondents who use Facebook are likely to be *sharers* (  $N(140) = 0,18$   $p < 0,05$  ) and *shared content visitors* (  $N(139) = 0,28$   $p < 0,01$  ). Twitter users are likely to be *connectors* (  $N(139) = 0,27$   $p < 0,01$  ), *sharers* (  $N(140) = 0,27$   $p < 0,01$  ), *creators* (  $N(138) = 0,30$   $p < 0,01$  ), *comment readers* (  $N(140) = 0,18$   $p < 0,05$  ), *conversationalists* (  $N(140) = 0,21$   $p < 0,05$  ), *conversation readers* (  $N(139) = 0,17$   $p < 0,05$  ), and *taggers* (  $N(141) = 0,19$   $p < 0,05$  ). YouTube users are likely to be *shared content visitors* (  $N(139) = 0,21$   $p < 0,05$  ). Digg users are likely to be *taggers* (  $N(141) = 0,23$   $p < 0,01$  ). No significant correlations were found between interaction pattern use and using Hyves, Google+, Flickr, or Pinterest.

#### 4.2.3b Motivations for pattern use

After the analysis of demographic and uses data, motivation scales for specific social media news interaction pattern use were looked into further. A factor analysis was performed for each social media news interaction pattern individually. This was done because the pre-defined uses and gratifications needs haven't been applied in a similar study before, so we can't be sure that the pre-defined needs apply to the situation studied. Furthermore, although motivations were extracted from previous U&G social media research, the current study is the first time they are used in this configuration. The factor analysis performed will provide insight into which

motivations are connect to which needs. This resulted in multiple factors being identified for each interaction pattern.

For the *connect* social media news interaction pattern, principal component analysis using Varimax rotation revealed six factors, explaining 69,2% of the total variance. Each factor was analyzed further with a reliability test. These reliability tests revealed acceptable Cronbach's Alpha values for all six factors. No items were removed based on the reliability tests. Table 21 below shows the six factors for the *connect* social media news interaction pattern, and the items each factor consists of.

<b>Information / discover</b> (Cronbach's Alpha: .876)	<b>Interaction / friendship</b> (Cronbach's Alpha: .820)	<b>Identity / connection</b> (Cronbach's Alpha: .779)
Find new information sources	Social interaction	Feel involved with others
Entertain myself	Maintain friendships	Reading other's opinions
Find information	Make new friends	Everybody does it
Keep up-to-date	Socialize	Gain access to experts
Enjoy it		
Find nice things		
Discover new things		
<b>Identity / image</b> (Cronbach's Alpha: .860)	<b>Entertainment / pass time</b> (Cronbach's Alpha: .791)	<b>Interaction / information</b> (Cronbach's Alpha: .843)
Show I'm up-to-date	Kill time	Exchange ideas with others
Present myself as an expert	Relieve boredom	Exchange information with others

Table 21: Factors for *connect* pattern

For the *share* social media news interaction pattern, principal component analysis using Varimax rotation revealed five factors, explaining 68,9% of the total variance. Each factor was analyzed further with a reliability test. Reliability tests revealed acceptable Cronbach's Alpha values for all five factors. In the *entertainment* factor, the item 'I enjoy it' was removed from the scale, resulting in a Cronbach's Alpha value of 0,913. No items were removed in any other factors. Table 22 on the next page shows the five factors and the items each factor consists of after items were removed.

Information / discover (Cronbach's Alpha: .896)	Entertainment (Cronbach's Alpha: .913)	Identity / connection (Cronbach's Alpha: .803)
Find new information sources	Enjoy myself	Make new friends
Find breaking news	Social interaction	It's a habit
Find information	Kill time	Everybody does it
Keep up-to-date	Socialize	Present myself as an expert
Find nice things	Relieve boredom	
Discover new things	Be stimulated	
Gain access to experts	Get distraction from other activities	
<b>Identity / image</b> (Cronbach's Alpha: .783)	<b>Interaction / friendship</b> (Cronbach's Alpha: .836)	
Show what interests me	Maintain friendships	
Give my opinion	Develop friendships	
Show I'm up-to-date		
Exchange information with others		
Notify others on interesting information		

Table 22: Factors for *share* pattern

For the *visit shared content* social media news interaction pattern, principal component analysis using Varimax rotation revealed five factors, explaining 62,5% of the total variance. Each factor was analyzed further with a reliability test. This reliability test revealed acceptable Cronbach's Alpha values for all five factors. In the *active interactions* factor the item 'social interaction' was removed from the scale, resulting in a Cronbach's Alpha value of 0,909. In the *entertainment / pass time* factor, the item 'entertain myself' was removed from the scale, resulting in a Cronbach's Alpha value of 0,866. No items were removed in any other factors. Table 23 on the next page shows the five factors and the items each factor consists of after items were removed.

For the *create* social media news interaction pattern, principal component analysis using Varimax rotation revealed four factors, explaining 77,0% of the total variance. Each factor was analyzed further with a reliability test. This reliability test revealed acceptable Cronbach's Alpha values for all four factors. Based on the reliability test the items 'be stimulated' and 'everybody does it' were removed from the *active interactions* factor, resulting in a Cronbach's Alpha value of 0,965. From the *entertainment* factor, the items 'exchange ideas with others' and 'feel involved with others' were removed from the scale, resulting in a Cronbach's Alpha value of 0,966. In the *identity / image* factor, the item 'gain access to experts' was removed from the scale, resulting in a Cronbach's Alpha value of 0,875. In the *information / discover* factor the item 'kill time' was removed from the scale, resulting in a Cronbach's Alpha value of 0,879. Table 24 on the next

page shows the four factors revealed for the *create* social media news interaction pattern and the items each factor consists of after items were removed.

<b>Active interactions</b> (Cronbach's Alpha: .909)	<b>Identity / pass time</b> (Cronbach's Alpha: .839)	<b>Information / fun</b> (Cronbach's Alpha: .781)
Show what interests me	Compare my opinion to other's opinions	Be stimulated
Maintain friendships	Show I'm up-to-date	Enjoy it
Make new friends	Get distraction from other activities	Find nice things
Exchange ideas with others	It's a habit	Discover new things
Socialize	Everybody does it	
Open online conversation	Present myself as an expert	
Exchange information		
Develop friendships		
Notify others on interesting information		
<b>Entertainment / pass time</b> (Cronbach's Alpha: .866)	<b>Information / discover</b> (Cronbach's Alpha: .661)	
Kill time	Find breaking news	
Relieve boredom	Find information	
	Keep up-to-date	

Table 23: Factors for *shared to* pattern

<b>Active interactions</b> (Cronbach's Alpha: .965)	<b>Entertainment</b> (Cronbach's Alpha: .966)	<b>Identity / image</b> (Cronbach's Alpha: .875)	<b>Information / discover</b> (Cronbach's Alpha: .879)
Find breaking news	Compare my opinion to other's opinions	Show what interests me	Form my opinion
Maintain friendships	Relieve boredom	Give my opinion	Find new information sources
Make new friends	Be stimulated	Open online conversation	Find breaking news
Keep up-to-date	Get distraction from other activities	Show I'm up-to-date	Enjoy it
Socialize	Find nice things	Notify others on interesting information	Gain access to experts
Develop friendships	Discover new things	Present myself as an expert	
It's a habit			
Feel involved with others			

Table 24: Factors for *create* pattern

For the *comment* social media news interaction pattern, principal component analysis using Varimax rotation revealed five factors, explaining 71,7% of the total variance. Each factor was analyzed further with a reliability test. These reliability tests revealed acceptable Cronbach's Alpha values for all five factors. Based on the reliability tests, the item 'gain access to experts' was removed from the *information / fun* factor, resulting in a Cronbach's Alpha value of 0,923. From the *identity / image* factor the item 'notify others on interesting information' was removed, resulting in a Cronbach's Alpha value of 0,830. No items were removed in any other factors. Table 25 below shows the five factors and the items each factor consists of after items were removed.

<b>Interaction / friendship</b> (Cronbach's Alpha: .925)	<b>Information / fun</b> (Cronbach's Alpha: .923)	<b>Interaction / fun</b> (Cronbach's Alpha: .869)
Maintain friendships	Find new information sources	Form my opinion
Make new friends	Find breaking news	Entertain myself
Keep up-to-date	Find information	Social interaction
Develop friendships	Be stimulated	Kill time
It's a habit	Find nice things	Socialize
Feel involved with others	Read other's opinions	Enjoy it
Everybody does it	Discover new things	
<b>Identity / image</b> (Cronbach's Alpha: .830)	<b>Identity / compare</b> (Cronbach's Alpha: .722)	
Open online conversation	Show what interests me	
Show I'm up-to-date	Give my opinion	
Present myself as an expert	Compare my opinion to other's opinions	
	Exchange ideas with others	

Table 25: Factors for *comment* pattern

For the *read comments* social media news interaction pattern, principal component analysis using Varimax rotation revealed six factors, explaining 78,0% of the total variance. Each factor was analyzed further with a reliability test. The reliability tests revealed acceptable Cronbach's Alpha values for five of the factors. One factor was removed completely based on a Cronbach's Alpha value of 0,461. Based on the reliability tests, the items 'find breaking news' and 'maintain friendships' were removed from the *active interactions* factor, resulting in a Cronbach's Alpha value of 0,966. The item 'it's a habit' was removed from the *entertainment / pass time* factor, resulting in a Cronbach's Alpha value of 0,901. No items were removed in any other factors.



Table 26 below shows the five factors that have an acceptable Cronbach's Alpha value and the items each factor consists of after items were removed.

Active interactions	Information / discover	Entertainment / pass time
(Cronbach's Alpha: .966)	(Cronbach's Alpha: .868)	(Cronbach's Alpha: .901)
Social interaction	Find new information sources	Kill time
Show what interests me	Find information	Relieve boredom
Give my opinion	Be stimulated	Get distraction from other activities
Make new friends	Discover new things	
Exchange ideas with others	Gain access to experts	
Socialize		
Open an online conversation		
Show I'm up-to-date		
Exchange information with others		
Develop friendships		
Notify others on interesting information		
Present myself as an expert		
<b>Identity / compare</b>	<b>Identity / discover</b>	
(Cronbach's Alpha: .729)	(Cronbach's Alpha: .787)	
Keep up-to-date	Find nice things	
Compare my opinion to other's opinions	Feel involved with others	
Read other's opinions		

Table 26: Factors for *read comments* pattern

For the *conversation* social media news interaction pattern, principal component analysis using Varimax rotation revealed six factors, explaining 78,1% of the total variance. Each factor was analyzed further with a reliability test. The reliability tests revealed acceptable Cronbach's Alpha values for all six factors. Based on the reliability tests, the items 'socialize', 'it's a habit', and 'everybody does it', were removed from the *interaction / friendship* factor, resulting in a Cronbach's Alpha value of 0,939. The items 'form my opinion', and 'gain access to experts' were removed from the *information / discover* factor, resulting in a Cronbach's Alpha value of 0,940. From the *interaction / information* factor the item 'social interaction' was removed, resulting in a Cronbach's Alpha value of 0,774. No items were removed in any other factors. Table 27 on the next page shows the six factors and the items each factor consists of after items were removed.

Interaction / friendship (Cronbach's Alpha: .939)	Information / discover (Cronbach's Alpha: .940)	Identity / image (Cronbach's Alpha: .775)
Maintain friendships	Find new information sources	Show what interests me
Make new friends	Find breaking news	Show I'm up-to-date
Develop friendships	Find information	Present myself as an expert
Feel involved with others	Keep up-to-date	
	Compare my opinion to other's opinions	
	Be stimulated	
	Find nice things	
	Discover new things	
Interaction / information (Cronbach's Alpha: .774)	Identity / compare (Cronbach's Alpha: .608)	Entertainment / pass time (Cronbach's Alpha: .766)
Give my opinion	Notify others on interesting information	Kill time
Exchange ideas with others	Read other's opinions	Relieve boredom
		Get distraction from other activities

Table 27: Factors for *conversation* pattern

For the *read conversations* social media news interaction pattern, principal component analysis using Varimax rotation revealed five factors, explaining 72,4% of the total variance. Each factor was analyzed further with a reliability test. Reliability tests revealed acceptable Cronbach's Alpha values for all five factors. Based on the reliability tests outcomes, the items 'give my opinion', and 'present myself as an expert' were removed from the *active interactions* factor, resulting in a Cronbach's Alpha value of 0,961. From the *information / discover* factor the item 'find nice things' was removed, resulting in a Cronbach's Alpha value of 0,862. From the *entertainment / pass time* factor the items 'it's a habit' and 'everybody does it' were removed, resulting in a Cronbach's Alpha value of 0,926. From the *interaction / friendship* factor the item 'feel involved with others' was removed, resulting in a Cronbach's Alpha value of 0,957. From the *identity / compare* factor the item 'read other's opinions' was removed, resulting in a Cronbach's Alpha value of 0,706. Table 28 on the next page shows the five factors that have an acceptable Cronbach's Alpha value and the items each factor consists of after items were removed.

For the *rate / vote* social media news interaction pattern, principal component analysis using Varimax rotation revealed four factors, explaining 83,5% of the total variance. Each factor was analyzed further with a reliability test. Based on the reliability tests outcomes a selection of items was removed from the factors. The items 'social interaction', 'maintain friendships', 'make friends', 'develop friendships', and 'feel involved with others' were removed from the *interaction*

factor, resulting in a Cronbach's Alpha value of 0,973. From the *entertainment / pass time* factor the items 'it's a habit' and 'everybody does it' were removed, resulting in a Cronbach's Alpha value of 0,946. No items were removed in any other factors. Table 29 below shows the four factors and the items each factor consists of after items were removed.

<b>Active interactions</b> (Cronbach's Alpha: .961)	<b>Information / discover</b> (Cronbach's Alpha: .862)	<b>Entertainment / pass time</b> (Cronbach's Alpha: .926)
Social interaction	Find new information sources	Kill time
Show what interests me	Find information	Relieve boredom
Make new friends	Be stimulated	
Exchange ideas with others	Discover new things	
Socialize	Gain access to experts	
Open an online conversation		
Show I'm up-to-date		
Exchange information with others		
Notify others on interesting information		
<b>Interaction / friendship</b> (Cronbach's Alpha: .957)	<b>Identity / compare</b> (Cronbach's Alpha: .706)	
Maintain friendships	Form my opinion	
Make new friends	Compare my opinion to other's opinions	
Develop friendships		

Table 28: Factors for *read conversations* pattern

<b>Interaction</b> (Cronbach's Alpha: .973)	<b>Information - Identity</b> (Cronbach's Alpha: .929)	<b>Entertainment/pass time</b> (Cronbach's Alpha: .946)	<b>Interaction / information</b> (Cronbach's Alpha: .865)
Socialize	Form my opinion	Entertain myself	Exchange ideas with others
Open online conversation	Find new information sources	Compare my opinion to other's opinions	Exchange information with others
Show I'm up-to-date	Show what interests me	Kill time	
Be stimulated	Find information	Relieve boredom	
Find nice things	Keep up-to-date	I enjoy it	
Present myself as an expert	Read other's opinions	Get distraction from other activities	
Discover new things			

Table 29: Factors for *rate* pattern

For the *tag* social media news interaction pattern, principal component analysis using Varimax rotation revealed three factors, explaining 90,9% of the total variance. Each factor was analyzed further with a reliability test. Based on the reliability tests outcomes the items 'social interaction' and 'it's a habit' were removed from the *entertainment / identity* factor, resulting in a Cronbach's Alpha value of 0,954. No items were removed in any other factors. Table 30 below shows the three factors and the items each factor consists of after items were removed.

Active interactions (Cronbach's Alpha: .992)	Entertainment / identity (Cronbach's Alpha: .954)	Identity (Cronbach's Alpha: .670)
Form my opinion	Show what interests me	Give my opinion
Find new information sources	Kill time	Everybody does it
Entertain myself	Relieve boredom	
Social interaction	I enjoy it	
Find breaking news	Get distraction from other activities	
Maintain friendships	Notify others on interesting information	
Find information		
Make new friends		
Keep up-to-date		
Compare my opinion to other's opinions		
Socialize		
Open an online conversation		
Show I'm up-to-date		
Develop friendships		
Be stimulated		
Find nice things		
Feel involved with others		
Read other's opinions		
Present myself as an expert		
Discover new things		

Table 30: Factors for *tag* pattern

For the *browse using tags* social media news interaction pattern, principal component analysis using Varimax rotation revealed four factors, explaining 73,7% of the total variance. Each factor was analyzed further with a reliability test. Based on the reliability tests outcomes the items 'exchange information with others', 'develop friendships', 'notify others on interesting information', and 'present myself as an expert' were removed from the *active interactions* factor, resulting in a Cronbach's Alpha value of 0,956. From the *information / discover* factor the items 'compare my opinion to other's opinions' and 'kill time' were removed, resulting in a Cronbach's Alpha value of 0,920. From factor 3 the item 'feel involved with others' was removed, resulting in

a Cronbach's Alpha value of 0,841. From the *entertainment / pass time* factor the item 'relieve boredom' was removed, resulting in a Cronbach's Alpha value of 0,952. Table 31 below shows the four factors and the items each factor consists of after items were removed.

Active interactions (Cronbach's Alpha: .956)	Information / discover (Cronbach's Alpha: .920)	Entertainment / habit (Cronbach's Alpha: .841)	Entertainment/pass time (Cronbach's Alpha: .952)
Social interaction	Find new information sources	It's a habit	Kill time
Show what interests me	Entertain myself	Everybody does it	Get distraction from other activities
Maintain friendships	Find information		
Give my opinion	Keep up-to-date		
Make new friends	Be stimulated		
Exchange ideas with others	I enjoy it		
Socialize	Find nice things		
Open an online conversation	Read other's opinions		
Notify others on interesting information	Discover new things		

Table 31: Factors for *browse using tags* pattern

Examination of the revealed factors shows that most factors can be categorized in the four uses and gratifications segments *information*, *interaction*, *entertainment*, and *identity*. However, the revealed factors seem to be more nuanced in respect to the four uses and gratifications segments. For instance, both the first factor for the *connect* interaction pattern and the second factor for the *visit shared content* interaction pattern can be viewed as factors measuring information related motivations. However, one factor contains items that suggest measuring information motivations with an emphasis on discovering, while the other factor is measuring information motivations with an emphasis on fun. Similar nuances can be found for the segments *interaction* (emphasis on friendship, information or fun), *entertainment* (emphasis on pass time or identity), and *identity* (emphasis on image or comparison).

#### 4.2.3c Pattern user needs

In the previous section factor analysis revealed several nuanced U&G motivational need factors for each social media news interaction pattern. Those factors were then analyzed in detail through reliability tests, which resulted in a selection of tested factors for each social media news interaction pattern.

In order to test whether the nuanced motivational U&G need segments are able to explain social media news interaction pattern use, and of so which segments are, sign tests were performed on each need segment revealed in paragraph 4.2.3b. Adding up the scores of all items within the need segment and then dividing the sum by the number of items calculated need segment mean

scores. Using sign tests, the need segment mean scores were compared to a score of 3. Hypothetically, if a respondent would only fill in neutral answers, the mean score would be 3. A mean score of 3+ suggests at least one motivation was rated positively. Therefore, a significant positive mean difference from 3 indicates that the factor concerned is positively associated with interaction pattern use.

Table 32 below shows the need segments with a mean value higher than 3 for every social media news interaction pattern. Not all need segments with a mean value higher than 3 show a significant mean difference from 3, because the difference in those cases is too small. Other need segments were analyzed using binominal distribution because the sample size was too small to perform a regular sign test. The social media news interaction patterns *rate/vote* and *tag* didn't have any factors with a mean value above 3. These patterns were excluded from the analysis.

Pattern	Need segment	Need segment	Need segment
Connect	Information / discover (3,73) **	Entertainment / pass time (3,19)	-
Share	Identity / image (3,37) **	-	-
Visit shared	Information / fun (3,55) **	Entertainment / pass time (3,03)	Information / discover (3,37) **
Create	Identity / image (3,80) **	-	-
Comment	Interaction / fun (3,01)	Identity / compare (3,85) **	-
Read comments	Information / discover (3,04) *	Entertainment / pass time (3,22) **	Identity / compare (3,82) **
Conversation	Identity / image (3,08)	Interaction / information (4,19) **	Identity / compare (3,22)
Read conversation	Information / discover (3,17) **	Entertainment / pass time (3,32) **	Identity / compare (3,81) **
Rate / vote	-	-	-
Tag	-	-	-
Browse using tags	Information (4,02)**	Entertainment / pass time (3,25)	-

Table 32: Factors per pattern with a 3+ mean score

\*\* p < 0,01

\* p < 0,05

For the *connect* social media news interaction pattern two need segments with a mean value above 3 were identified: *information / discover* and *entertainment / pass time*. The mean difference was significant for the *information / discover* need segment (  $Z = -6,38$  p < 0,01 ), although no significant difference was found for the *entertainment / pass time* factor.

One need segment (*identity / image*) with a mean value above 3 was identified for the *share* social media news interaction pattern. The mean for this *identity / image* need segment was significantly higher than 3 (  $Z = -1,60$  p < 0,01 ).

The *visit shared content* social media news interaction pattern data revealed three need segments with a mean value above 3: *information / fun*, *entertainment / pass time*, and *information / discover*. A significant mean difference was found for the *information / fun* need

segment ( $Z = -6,51$   $p < 0,01$ ) and *information / discover* need segment ( $Z = -4,22$   $p < 0,01$ ). The *entertainment / pass time* need segment did not show a significant mean difference.

For the *create* interaction pattern one need segment with a mean value above 3 was identified: *identity / image*. The mean difference was significant ( $p < 0,01$ ), but due to the small sample size binominal distribution was used, so no Z-score was computed.

Two need segments with a mean value above 3 were identified for the *comment* social media news interaction pattern: *interaction / fun* and *identity / compare*. A significant mean difference was found for the *identity / compare* need segment ( $Z = -4,53$   $p < 0,01$ ). For the *interaction / fun* need segment no significant mean difference was found.

For the *read comments* social media news interaction pattern three need segments with a mean value above 3 were identified: *information / discover*, *entertainment / pass time*, and *identity / compare*. For all three need segments significant mean differences were found: *information / discover* ( $Z = -1,98$   $p < 0,05$ ), *entertainment / pass time* ( $Z = -2,50$   $p < 0,01$ ), and *identity / compare* ( $Z = -6,90$   $p < 0,01$ ).

The *conversation* social media news interaction pattern data revealed three need segments with a mean value above 3: *identity / image*, *interaction / information*, and *identity / compare*. For the need segment *interaction / information* the mean difference was found to be significant ( $Z = -4,73$   $p < 0,01$ ), although the mean differences for the *identity / image* and *identity / compare* need segments weren't significant.

For the *read conversations* social media news interaction pattern three need segments with a mean value above 3 were identified: *information / discover*, *entertainment / pass time*, and *identity / compare*. For all three need segments significant mean differences were found: *information / discover* ( $Z = -3,60$   $p < 0,01$ ), *entertainment / pass time* ( $Z = -3,52$   $p < 0,01$ ), and *identity / compare* ( $Z = -6,88$   $p < 0,01$ ).

The social media news interaction patterns *rate/vote* and *tag* didn't have any need segments with a mean value above 3.

Two need segments with a mean value above 3 were identified for the *comment* social media news interaction pattern: *information* and *entertainment / pass time*. A significant mean difference was found for the *information* need segment ( $Z = -5,66$   $p < 0,01$ ). For the *entertainment / pass time* need segment no significant mean difference was found.

### 4.3 Conclusions

In this paragraph, conclusions will be drawn from the research results for both study 1 and study 2 on social media news interaction pattern value. Paragraph 4.3.1 will focus on drawing conclusions for the first study, aimed at answering the question what the value of social media news interaction patterns is for online news publishers. Paragraph 4.3.2 will focus on drawing conclusions for the second study, aimed at answering the question what the value of social media news interaction patterns is for users of online news.

### 4.3.1 Publisher value study conclusions (study 1)

In the context of the current study five case studies were carried out. Each case study focussed on a different news category (e.g. political news, economical news, sports news etc.) and consisted of three news articles taken from the website of Dutch regional newspaper Twentsche Courant Tubantia. The news articles were analyzed using publicly observable web-data, ComScore web-analytics data provided by TV Tubantia, and Coosto social media data.

#### 4.3.1a Pattern observability

In the preliminary study described in chapter 3, eleven social media news interaction patterns were identified. The first research objective for the publisher value case studies was to examine the extent to which these patterns are observable in the practical situation of an online news website.

On the TC Tubantia website six social media news interaction patterns were observable. Pattern observability manifested in two possible ways; public observability and restricted observability. Public observability occurs when social media news interaction patterns can be observed by anyone, without using any private or restricted data. Examples of this kind of pattern manifestation include the connect pattern, share pattern, *comment* pattern, *conversation* pattern, *rate/vote* pattern and *tag* pattern. All these patterns are for everyone to see. For example, the *share* pattern often manifests itself by a number of social media buttons on the bottom of a news article, enabling the user to directly share the news article to their friends and followers on social media. Comments and conversations going on in the comments usually are publicly visible below a new article too, as are tags.

Restricted observability occurs when social media news interaction patterns aren't publicly visible, but instead can only be observed using data with a restricted availability, usually only accessible for a specific group people. Examples include the *visit shared content* pattern, *reading comments* pattern, *reading conversations* pattern and *browse using tags* pattern. These patterns aren't visible in the same way like buttons, placed comments and rating are, but consist of (a sequence of) online behaviours that can only be measured using web-analytics. For instance, the *visit shared content* pattern can be made visible through insight in the referrals coming from social media. Most KPI's used in this study combined publicly observable web and social media data with restricted web-analytics data.

#### 4.3.1b Pattern measurability

For the social media news interaction patterns that were observable in the selected TC Tubantia cases, pattern measurability was examined. Measuring multiple KPIs for organizational objectives associated with pattern allowed for an examination of this aspect. The better measurable a



pattern is, the better pattern performance can be monitored, which can help to maximize the impact of social media efforts.

The case studies show that the *share* social media news interaction pattern's objective of increasing reach can be measured using the available data. For the pattern a number of KPI's were measured: *potential reach*, and *browsers to number of shares ratio*. Across cases an increase in number of shares was observed alongside an increase of potential reach. A small number of shares could actually increase potential reach with thousands of people. Share ratio's differed from 1 share per 24 browsers (4%) to 1 share per 200+ browsers (0,5%). The second social media news interaction pattern that could be observed in the TC Tubantia cases was *visiting shared content*. The organizational objective associated with this pattern, increasing reach, was measures by several KPIs: *browsers via social media to number of shares ratio*, *browser to returning browsers ratio*, *browsers via social media to returning browsers via social media*, and *browsers to browsers via social media*. Examining the data across cases shows that the *visit shared content* pattern increases reach. Every share on average brought two to four visitors to the website. Comparing the returning visitors to new visitors ratios shows that visitors via social media had a higher percentage of new visitors among them.

For the *comment* and *read comments* social media news interaction patterns the case studies show that the pattern's objective of facilitating interaction and relational exchange can be measured using the available data. In almost all case studies the *comment* pattern was found. KPIs used to measure these patterns include *number of comments*, *length of comments*, and *impressions to comments ratio*. The number of comments per article ranged from 1 to 37 and length of comments ranged from 1 phrase to 14 phrases. Lower comment lengths are observed in relation to comments simply making a statement, while longer comments are observed in relation to comments explaining a point using arguments. Interaction figures for the *comment* pattern are higher than the figures for the *share* pattern. Maximum interaction was about one comment placed for every 25 browsers (4%), but in most cases it was around one comment placed for every 60 browsers (roughly 2%). Impressions to unique browsers ratios were found to vary across cases. Generally, ratios were higher for articles with more than 10 comments (1,6 to 1,7) than for articles with less than 10 comments or articles without comments (1,2 to 1,3), but the article with the most comments (37) had the lowest measured impressions to unique browsers ratio (1,1).

Similar to the *comment* and *read comments* patterns, the *conversation* and *read conversations* social media news interaction patterns organizational goals are to facilitate interaction and relational exchange. Almost all articles with multiple comments had one or more conversations going on in the comment section. KPIs that were measured include *number of comments*, *number of unique posters*, *number of conversations*, *length of conversations* and *impressions to conversations ratio*. In most cases only a small number of readers left multiple comments and most conversations lasted for one or two posts. As could be expected, impressions to

conversations ratios were higher than impressions to comments ratios. One result that stood out was that article's without conversations going on in the comment section impressions to unique browsers ratios didn't differ from articles without comments to begin with.

#### 4.3.1c Pattern value for publishers

The observability and measurability of social media news interaction patterns were examined. Patterns can be observed in two ways, and a selection of patterns have proven to be measurable in the case studies, but what do the results mean in terms of pattern value for an online news organization?

The *share* social media news interaction pattern's main value is to increase potential reach. Case study data shows that only a small percentage of readers (between 0,5 and 4%) share an article with their friends and followers on social media, so engagement levels are relatively low. However, this small number of shares greatly increases potential reach via social media, from 240 users with one share to 18.518 users with 14 shares. Looking at the *share* pattern this way, it may not only be valuable to increase reach, but also to increase brand awareness and build thought leadership, as the literature study also suggested.

The *visit shared content* social media news interaction pattern's main value is to increase actual reach. Case study data shows that a single share to social media generates only a small number of visitors to the website, generally between 2 and 4 visitors per share. However, compared to the total group of article visitors, a relatively high percentage of visitors referred to the article via social media are new visitors. So, shared content via social media doesn't generate much traffic, the traffic it does generate consists of a relatively large group of new visitors, increasing website audience. Also, visitors referred from social media are active on social media and interested in news: precisely the type of visitor who will be familiar with using social media news interaction patterns.

The *comment* social media news interaction pattern's main value is to facilitate interaction and relational exchange. Case study data shows that 2 to 4% of an article's readers post a comment on the article. In relative terms the maximum is comparable to the engagement levels of the *share* pattern, but the minimum is much higher for the *comment* pattern, resulting in higher overall engagement levels. Overall, with a length of around 4 phrases, comments were rather substantive. The *read comments* social media news interaction pattern's main value seems not to be facilitating interactions and relational exchange, as indicated by online news professionals in the preliminary study, but to increase reader loyalty. Across the examined cases there seems to be an optimal number of comments in respect to the highest impressions to unique browsers ratio. Under 10 comments, and above 30 comments the ratio doesn't differ from the ratio seen on articles without comments posted in reaction to it. Roughly one out of every three readers returned to the article a second time. However, on articles with around 20 comments, impression to unique browsers ratio was much higher. Roughly two out of three readers returned to the

article a second time. These results suggest there may be a curve that can be used to increase reader loyalty through the comment section.

Similar to the *comment* pattern, the *conversation* social media news interaction pattern's main value is to facilitate interaction and relational exchange. Case study data shows that a minority of users (between 7 and 20%) posting comments engage in online conversations in those comments. In the articles that were examined, most conversations lasted one or two posts. The *read conversations* social media news interaction pattern's main value seems not to be facilitating interactions and relational exchange, as indicated by online news professionals in the preliminary study, but to increase reader loyalty. Across the examined cases data shows that articles that had conversations going on in the comment section had higher impressions to unique browsers ratios. If an article had conversations going on in the comment section, roughly two out of three readers returned to the article a second time, against one out of three when conversations were absent. However, lower relative engagement in conversations resulted in lower impressions to unique browsers ratios.

### Study 1 conclusions overview

Study 1 served three objectives: (1) to analyze the extent to which social media news interaction patterns can be observed in the practical context of an online newspaper, (2) to analyze whether publisher objectives associated with the social media news interaction patterns can be measured using the key performance indicators (KPIs), and (3) to analyze the added value of social media news interaction patterns for an online news service.

Social media news interaction patterns can be observed in the practical context of an online newspaper. Two forms of observability are distinguished, public- and restricted observability. Publicly observable patterns can be viewed by anyone, while restrictively observable patterns can only be viewed with access to specific web- or social media analytics data. Using key performance indicators (KPIs), social media news interaction patterns can be measured, however due to the absence of some patterns, not all patterns identified in Chapter 3 could be measured. All patterns that could be measured were associated with one or more publisher goals for social media.

### 5.3.2 User value study conclusions (study 2)

In addition to the study focussing on the value of social media news interaction patterns for online news publishers, a second study focussing on the value of social media news interaction patterns for online news users was conducted. The study consisted of an online questionnaire, which was publicly available for a month. The questionnaire focussed on user motives and associated needs for using social media news interaction patterns.

### 4.3.2a Pattern use

In the preliminary study described in chapter 3, eleven social media news interaction patterns were identified. The first research objective for the user value study was to examine the extent to which these patterns are actually used by readers in the practical situation of an online news website.

The group of respondents consisted a relatively young group of online news savvy people, a vast majority of which actively uses one or more social media applications. Furthermore, the group of respondents indicated to use those social media applications in relation to online news to varying extents. There was no social media news interaction pattern that wasn't used by any of the respondents, although some interaction patterns weren't used as much as others. The most used patterns were *connect* (61,7%), *share* (61,7%), *visit shared content* (73%), *read comments* (75,1%), and *read conversations* (62,5%). Patterns that weren't used by a majority of respondents include *create* (15,6%), *comment* (24%), *conversation* (21,9%), *rate/vote* (17,1%), *tag* (10,0%), and *browse using tags* (25,6%).

### 4.3.2b Motivations for pattern use

After social media news interaction pattern use was examined, the second research objective for the user value study focussed on the identification of relevant user need segments. Identifying relevant user need segments can provide insight into the underlying motivations online news readers have for social media news interaction pattern use.

Factor analysis and reliability tests conducted for each social media news interaction pattern revealed several motivational need segments for every pattern. The motivational need segments fitted uses and gratifications need dimensions, although the motivational need segments revealed in this study seem to be more nuanced than the original uses and gratifications need dimensions, as discussed in paragraph 2.3.3b. For instance, the *information* dimension was divided into two sub-dimensions measuring an information need driven by discovery-oriented motivations, and an information need driven by fun-oriented motivations. The same was true for the other uses and gratifications dimensions. For the interaction dimension, two sub-dimensions were found, measuring an interaction need driven by fun-oriented motivations, and an interaction need driven by information-oriented motivations. For the entertainment dimension, one sub-dimension was found, measuring an entertainment need driven by motivations aiming to pastime. The amusement oriented motivations in the original uses and gratifications dimensions were found in the *information / fun* sub-dimension. For the identity dimension, two sub-dimensions were found, measuring an identity need driven by image-oriented motivations, and an identity need driven by comparison-oriented motivations. Table 35 displayed below provides an overview of uses and

gratifications need dimensions, as discussed in paragraph 2.3.3b, and motivational need segments found in this study.

Information		Interaction		Entertainment / escape	Identity	
Discovery	Fun	Information	Fun	Pass time	Image	Compare

Table 34: U&G need dimensions and motivational need segments found in the study

#### 4.3.2c Pattern value for users

The extent to which social media news interaction patterns are used by online news readers, and relevant motivations for using social media news interaction patterns were examined. All social media news interaction patterns are used to some extent, and eight motivational need segments were identified. But which of these need segments actually drive social media news interaction pattern use? In other words, what is the value of social media news interaction patterns for online news users?

Using the *connect* social media news interaction pattern was found to be connected to an information need driven by discovery-oriented motivations, such as *finding new information sources*, *finding information*, *discover new things*, *keeping up-to-date*, and *entertaining oneself*. The value of the *connect* pattern for online news users is to discover new information.

Using the *share* social media news interaction pattern was found to be connected to an identity need driven by image-oriented motivations, such as *showing what interests oneself*, *giving one's opinion*, and *showing one is up-to-date*. The value of the *share* pattern for online news users is to communicate a news-savvy image of themselves to others.

Using the *visit shared content* social media news interaction pattern was found to be connected to the two separate information need sub-dimensions. Visiting shared content from an information need driven by fun-oriented motivations means seeking to *be stimulated*, to *enjoy doing it*, to *find nice things*, and to *discover new things*. Visiting shared content from an information need driven by discovery-oriented motivations means seeking to *find breaking news*, to *find information*, and to *keep up-to-date*. The value of the *visit shared content* pattern for online news users is to find fun things and to find new information.

Using the *create* social media news interaction pattern was found to be connected to an identity need driven by image-oriented motivations such as *showing what interests oneself*, *giving one's opinion*, *showing one is up-to-date*, and to *present oneself as an expert on the topic*. The value of the *create* pattern for online news users is to communicate a news-savvy images of themselves to others.

Using the *comment* social media news interaction pattern was found to be connected to an identity need driven by comparison-driven motivations, such as *giving one's opinion*, *comparing one's opinion to other's opinions*, and to *exchange ideas with others*. The value of the *comment*

pattern for online news users is to compare their views to those of others. The remarkable thing is that the interaction need dimensions did not score significantly higher than the theoretical mean score for need dimensions.

The *reading comments* social media news interaction pattern was found to be connected to three needs in different need dimensions. First, reading comments is connected to an information need driven by discovery-oriented motivations such as *finding information*, *being stimulated*, and *discovering new things*. Second, reading comments is connected to an entertainment need driven by pastime-oriented motivations such as *to kill time* and *to relieve boredom*. Third, reading comments is connected to an identity need driven by comparison-oriented motivations such as *reading others opinions* and *comparing one's own opinion to other's opinions*. The value of the *reading comments* pattern for online news users is to discover new information, to pass the time, and to compare their views to those of others.

The *conversation* social media news interaction pattern was found to be connected to an interaction need driven by information-oriented motivations such as *giving ones opinion* and *exchanging ideas with others*. The value of the *conversation* pattern for online news users is to exchange information and their views with others.

The *read conversations* social media news interaction pattern was found to be connected to three needs in different need dimensions. First, reading comments is connected to an information need driven by discovery-oriented motivations such as *finding information*, *being stimulated*, and *discovering new things*. Second, reading comments is connected to an entertainment need driven by pastime-oriented motivations such as *to kill time* and *to relieve boredom*. Third, reading comments is connected to an identity need driven by comparison-oriented motivations such as *forming one's own opinion* and *comparing one's own opinion to other's opinions*. The value of the *read conversations* pattern for online news users is to discover new information, to pass the time, and to compare their views to those of others.

For the *rate/vote* and *tag* social media news interaction patterns there were no motivational need dimensions scoring above the scale mean, so the motivational need segments revealed were all negatively associated with pattern use. This means that traditional uses and gratifications media need dimensions weren't able to give an explanation for these two social media news interaction patterns, and the value of these patterns for online news users can't be determined.

The last social media news interaction pattern that was examined, *browsing content using tags* was found to be connected to a general information need dimension covering motivations such as *finding information*, *entertaining oneself*, *keeping up-to-date*, *being stimulated*, *finding nice things*, and *discovering new things*. The value of the *browsing content using tags* pattern for online news users is to find information and to discover new things.

**Study 2 conclusions overview**

Study 2 served three objectives: (1) to gain insight into the extent to which social media news interaction patterns are used by online news readers, (2) to gain insight into the user motives and associated needs for using social media news interaction patterns, and (3) to analyze the extent to which *uses and gratifications* dimensions are fit to explain the uses of social media news interaction patterns among users.

All eleven social media news interaction patterns are used by online news readers. The most used patterns were *connect*, *share*, *visit shared content*, *read comments*, and *read conversations*. User motives and associated goals were found for each social media news interaction pattern through factor- and reliability analysis. Motivational user goals were found to be largely in accordance to motivational goals predicted by uses and gratifications research, although the goals found in this study seem to be more nuanced. Sign tests were performed to examine the extent to which these nuanced *uses and gratifications* dimensions are fit to explain the use of social media news interaction patterns among users. Use of all but two social media news interaction patterns could be explained by one or more of the motivational goals found in this study.

## 5. Conclusions and recommendations

This chapter will focus on answering the main research question, about the value of social media news interaction patterns. In paragraph 5.1 the six sub questions, discussed in paragraph 1.3, will be answered. Then, in paragraph 5.2, the main research question will be answered. Paragraph 5.3 will focus on practical recommendations based on the conclusions drawn in this chapter.

### 5.1 Social media, patterns, and value

In this study, answering the main research question is worked towards by answering six sub questions. In Chapter 2, the first three sub questions are answered. Chapter 3 answers the fourth sub question, and Chapter 4 answers the last two sub questions.

In paragraph 2.1 the concept of *social media* was defined and elaborated on. Social media can be viewed from a number of perspectives (Constantinides & Fountain, 2008; Kaplan & Haenlein, 2010). From a user point of view, social media are a set of internet-based, interactive applications that allow users to create and share content, as well as to communicate and collaborate with each other (Kaplan & Haenlein, 2010; Li & Ma, 2011). From an organization point of view on the other hand, social media are a set of tools that allow organizations to get to know customers, markets and competitors in real time, as well as to involve these customers in communication, marketing and innovation processes (Constantinides et al, 2008).

In paragraph 2.2 the *pattern* concept played a central role. An overview of its origins and the way it has been applied was given, and the structure and development of patterns was explained, on the basis of these applications. The *pattern* concept can be found in many disciplines, often referring to a systematically recurring set of objects or events. Alexander et al (1977) originally developed their pattern language in the field of architecture, but the approach has also been applied successfully in the fields of software development, interaction design, and multi-disciplinary projects (Borchers, 2001; Cooper et al, 2007; Dearden & Finlay, 2006; Martin & Roski, 2007; Schuler, 2008).

In paragraph 2.3 the emphasis was on bringing the concepts of *social media* (paragraph 2.1) and *patterns* (paragraph 2.2) together, resulting in social media patterns. A social media pattern is defined as a description of a social media usage process, comprised of context, goal, interaction or interfaces, and in which processes are characterized by context-, goal-, interaction- and interface-dimensions.

In paragraph 2.4, the foundations for social media news interaction patterns were identified in the form of interactive social media functionalities. Seven social media functionalities, found across various types and applications of social media, were identified through the literature. In Chapter 3, online news professionals validated these social media news interactions, and interactions were developed into social media news interaction patterns. All interactions could be



translated into at least one interaction pattern. Four interactions were refined into eight more nuanced interaction patterns, bringing the total number of social media news interaction patterns identified to eleven.

In Chapter 4 the value of social media interaction patterns for the publisher and user were studied. Publisher value was measured through publisher goals for using social media, and user value was measured through user goals for using social media. Social media news interaction patterns can be observed and measured in the practical context of an online newspaper. All patterns that could be measured were associated with one or more publisher goals for social media. All but two patterns were associated with one or more user goals for social media.

## 5.2 Social media news interaction pattern value

This study has focussed on the development of social media news interaction patterns, and examining the value these patterns have. This resulted in the conclusions drawn in paragraph 4.3.1 in terms of pattern value for publishers, and paragraph 4.3.2 on pattern value for online news users. The broader, general value of social media news interaction patterns lies in their descriptive capabilities for strategic social media use, as they serve as a link between social media objectives for publishers (paragraph 2.3.3a) and social media objectives for users (paragraph 2.3.3b).

Combining the results from the publisher value case studies and the user value study, table 35 on the next page is an alteration of the original descriptive model, as proposed in paragraph 3.4. Publisher objectives are placed on the Y-axis, and user objectives are placed on the X-axis. Social media news interaction patterns that could be measured in just one of the studies are in italic typeface, the patterns that were measured in both studies are in regular typeface, and the patterns that couldn't be measured in either of the studies are excluded from the model.

Social media news interaction patterns can connect specific desired strategic outcomes to a selection of social media functionalities, as the conceptual model developed in paragraph 2.6 suggested. Take for instance the first row of the social media news interaction patterns value model. If an online news publisher's goal is to increase reach, various interactions are fit for implementation. The publisher can offer ways for the user to *connect* himself or herself to the publisher. This interaction is mainly used by people who want to discover new information. Another interaction that can be used to increase reach is to offer users the option to share a news article with their friends / followers. This interaction is mainly used by people who want to project a certain image of them. However, other users may visit content shared to them by their friends, too. Visiting shared content is an activity mainly done by people who want to discover new information, find fun things, or pass the time.

Objectives	Information		Interaction		Entertain- ment	Identity	
	Discover	Fun	Information	Fun	Pass time	Image	Compare
Increase reach	<i>Connect</i> Visit share	Visit share			Visit share	Share	
Increase loyalty	Read com. Read conv.				Read com. Read conv.		Read com. Read conv.
Facilitate interaction			Conversation				Comment
Co-creation						Create	
Enhance findability	<i>Browse tags</i>						

Table 35: Social media news interaction patterns value model

Comparing the descriptive model for social media news interaction patterns (table 11) to the social media news interaction patterns model (table 35), it can be concluded that online news professional's ideas of social media news interaction pattern's value for publishers is rather accurate. However, this isn't the case for user objectives. Whereas the online news professionals had the idea that each social media news interaction pattern would be associated with satisfying multiple needs, the user value study results show that this is the case with only three patterns. The other patterns that were examined were all associated with just one need.

### 5.3 Recommendations

The results and conclusions drawn from the preliminary study, the case studies and the online questionnaire combined provide a unique look at social media use in the context of online news. It also exposes a number of opportunities for online news organizations when it comes to social media implementation. Because of the unique approach that this study has taken on social media, recommendations can also be made on thinking about social media. Perhaps a fresh perspective can change the way organizations look at and think about social media, make it seem more manageable and less threatening.

#### 1. *Focus on interactions and users*

The pattern approach on social media taken in this study is a rather new approach. Most people and organizations think about social media as being platforms. However, this study on social media news interaction patterns has shown that social media are more

than just platforms. On these platforms all sorts of interactions are taking place, and not all interactions are being used equally. For instance, some users are following / friending a lot of other users, some aren't. Some users are interacting with others a lot by exchanging (public) messages, others are reading those interactions without getting involved, and others are rating the messages posted by users interacting.

I recommend news organizations actively employing social media to gain more insight into who your users are and which interactions they are engaging in. A social media strategy can only reach its full potential when online strategists and online marketers anticipate on the behaviour of their audience. By understanding the user and the kinds of interaction in which the user engages, organizations can provide and engage in interactions that are truly meaningful to the user.

## **2. *Focus on KPI development and goal measurement***

Most organizations, news organizations included, feel that they have to do something with social media. They have started to implement social media without thinking too hard about the 'why'. By now, as the interviews with online news professionals in Chapter 3 show, most organizations have an idea of for which goals social media can be employed. However, a majority of marketers is struggling with measuring these goals.

I recommend news organizations engaging in social media to develop relevant KPIs and to start measuring their goals. In this study a number of social media goals essential to every online news publisher proved to be measurable. The KPIs used in this study can be adopted and used in practice, they can be refined before use in practice, or new KPIs can be developed. You can't afford not to know what the effect of your social media strategy is.

## 6. Discussion

This study has been a first exploration of the pattern concept applied to social media. The initial results of this study seem promising. Because research using this approach is still scarce, additional research applying the social media pattern concept is needed. This chapter focuses on the opportunities for future research.

This study focussed on social media interaction patterns in the context of online news. Future research should focus on testing the concept in other contexts, such as marketing, customer support, internal communication etc.

In the first step of the current study, online interviews with online news professionals were used to validate the social media news interaction patterns extracted from the literature. Even though the group of online news professionals was diverse, it consisted of just 9 respondents. Future research should use a bigger group of respondents to validate the patterns that were identified in this study. Also, future research shouldn't focus on online news professionals solely. Patterns should be validated from a user perspective too, to answer questions like can the patterns also be validated by users? And can users identify additional relevant interaction patterns?

The main research in this study focused on the value of social media news interaction patterns. This was done in two separate studies. Study one focused on the value for publishers, while study two focused on the value for users.

Study one had some limitations in respect to examining the social media news interaction patterns. A number of patterns couldn't be observed, because the TC Tubantia website did not have these patterns implemented. Future research should focus on examining these patterns in the context of online news further. Also, the exact differences in objectives met between the connect and conversation patterns were hard to tell. Future research should focus on the differences between these patterns further by specifically pairing articles with comments only, and comments as well as conversations. Furthermore, examining additional KPIs may provide new insights into social media news interaction patterns. The publisher value case studies were performed on articles from a single Dutch regional newspaper. This makes for a weak external validity. Future research on social media news patterns should therefore include a more wide variety of news sources and news organizations, for instance, national newspapers, online-only news sources, or even other regional newspapers.

Study two had some limitations in respect to the sample size. The sample consisted of 141 respondents who completed the online questionnaire. Because some patterns we used by only a small percentage of respondents, test reliability and external validity of results was low in these cases. Future research should include a larger sample size, so that test reliability and external validity of results will be higher. Future research should also focus on identifying additional need dimensions and motivations so that the patterns that didn't load on any of the traditional uses

and gratifications dimensions can be studied further. A suggestion would be to include dimensions measuring the need to help others and the need to interpret knowledge and information. While respondents who participated in study 2 were very news-savvy, they weren't inquired about which news sources they use. Future research should therefore focus on matching news organization's data with user data from its own (target) audience, so that a more accurate description of a specific audience is possible.

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## Appendix A: Online expert interview

### Appendix A-1

Interview respondents:

- J. Mollen – Multimediajournalist
- L. Zeggelaar – Coordinator Internet Leeuwarder Courant
- R. Banierink – Journalist
- H. Berkhout – Editor in chief multimedia / online Twentsche Courant Tubantia
- L. Schutte – Web editor
- E. Groot Rouwen – Function not provided
- R. Wijnberg – Editor in chief NRC.next
- J. Vreeman – Web editor
- R. Buitink – Web editor

### Appendix A-2

Welcome to the online interview on social media news patterns. We are very happy that you choose to take part in the interviews. This online interview focuses on various social media functionalities and their uses in an online news context. The interview consists of six, mostly open-ended questions. Please take your time think your answers over and use as many words you need to motivate your answers. The results will help to establish a set of tested social media news interaction patterns, which enable online news professionals to make well-founded decisions on social media implementation on websites and applications.

Please enter your name and job title.

Name:

Job title:

The first part of the interview focuses on social media functionalities and their features. We have identified a number of social media functionalities. Please read their descriptions carefully.

#### ***Connect***

The 'connect' functionality allows users to make a connection to other users within the system explicit. Examples of the 'connect' functionality include friending on Facebook, following on Twitter and subscribing on YouTube.

#### ***Share***

This social media functionality is used to describe various kinds of content sharing and recommending behaviour on or within online social networks. Content can be shared as is, or a comment may be added when sharing, as an indication of the sender's opinion or for the receiver to estimate whether or not the content shared is of interest. Examples of sharing include Facebook shares and likes, and Twitter retweets and favourites,

### **Create**

Exchanging messages and content is a central functionality on social media. The 'create' social media functionality is used to describe one of the specific aspects of messaging and content creation on social media. Creating involves the creation of new content or a new discussion topic. Examples of the social media functionality 'create' include sending a tweet on twitter, posting content on a Facebook timeline, opening a thread on a message board and writing a blog entry.

### **Comment**

This social media functionality describes another specific aspect of messaging on social media. *Commenting* involves leaving messages in reaction to a post or another comment. It allows users to express their opinion on a topic discussed. *Commenting* differs from *creating* in the sense that a comment is always a reply or a reaction on a discussion topic, while creating means that a new discussion topic is created. Examples of commenting include replying to a blog entry, sending a comment on Facebook, and sending a (video) response on YouTube.

### **Discussion**

The social media functionality 'discussion' can be described as a feedback loop. Discussion means that a conversation in the comment section takes place. An interaction in the form of *post > comment > comment-on-comment* would fit the label 'discussion', while an interaction in the form of *post > comment* would fit the label 'comment'.

### **Vote**

The social media functionality 'vote' allows users to rate content, products and other user profiles. Examples include 1-5 star rating systems (as seen on YouTube and Ebay ), and +/- systems (often used to rate user comments).

### **Tag**

This social media functionality describes various tagging applications on social platforms. It allows users to add descriptive keywords to specific content, creating a 'tag cloud' describing the content subject. Examples include tags on YouTube, Twitter hashtags and tags on various blogs.

1. Which social media functionalities can provide a useful addition to an online news services' websites and applications?
  - a. Connect
  - b. Share
  - c. Create
  - d. Comment
  - e. Discussion
  - f. Vote
  - g. Tag
  - h. Other [please specify]
  
2. Can you specify which features make each social media functionality unique? In other words: how can social media functionalities be distinguished?
  - a. Connect [text input]
  - b. Share [text input]
  - c. Create [text input]
  - d. Comment [text input]
  - e. Discussion [text input]
  - f. Vote [text input]
  - g. Tag [text input]
  - h. Other [text input]
  
3. Can you specify which of these features make these social media functionalities useful in an online news context?
  - a. Connect [text input]
  - b. Share [text input]
  - c. Create [text input]
  - d. Comment [text input]
  - e. Discussion [text input]
  - f. Vote [text input]
  - g. Tag [text input]
  - h. Other [text input]

The next question focuses on the value social media functionalities create for news organizations.



4. Which (journalistic) organizational goal(s) does each social media functionality help to accomplish?
- a. Connect [text input]
  - b. Share [text input]
  - c. Create [text input]
  - d. Comment [text input]
  - e. Discussion [text input]
  - f. Vote [text input]
  - g. Tag [text input]
  - h. Other [text input]

The next question focuses on the value social media functionalities create for online news users. According to the uses and gratifications approach, there are four needs associated with media use:

**Information** needs are associated with media use related to learning new things, staying up to date on news and finding new information.

**Interaction** needs are associated with media use related to establishing, developing and maintaining relationships, as well as socializing and exchanging ideas and thoughts.

**Entertainment / escape** needs are associated with media use related to relieving boredom, passing time and finding excitement.

**Identity** needs are associated with media use related to relating to others, identifying with others, and status seeking.

5. Which user need(s) play a role when using each social media functionality on an online news service website or application? [multiple answers possible]
- a. Connect [information / interaction / entertainment / identity]
  - b. Share [information / interaction / entertainment / identity]
  - c. Create [information / interaction / entertainment / identity]
  - d. Comment [information / interaction / entertainment / identity]
  - e. Discussion [information / interaction / entertainment / identity]
  - f. Vote [information / interaction / entertainment / identity]
  - g. Tag [information / interaction / entertainment / identity]
  - h. Other [information / interaction / entertainment / identity]

The following question focuses on measurement of social media endeavours in the context of online news.

6. How is the success of implemented social media functionalities measured?

- a. Connect [text input]
- b. Share [text input]
- c. Create [text input]
- d. Comment [text input]
- e. Discussion [text input]
- f. Vote [text input]
- g. Tag [text input]
- h. Other [text input]

You have completed the online interview on social media news patterns. Thank you for your participation!

## Appendix B: Case study analysis forms

## Appendix B-1

SOCIAL MEDIA NEWS INTERACTION PATTERN: CONNECT					
Organizational objective		Increase reach / network		Customer loyalty	
KPI		Number of followers	Potential reach	Number of followers	Impressions – interactions ratio
Info	Source	Web data.	Data social media monitoring tool Coosto.	Web data.	This KPI can't be measured using the tools available for this study.
Type of data		Follower, reach, interaction, and page like data from micro-blogging site Twitter and social network site Facebook.	Data from a range of social media, including microblogging site Twitter, social network site Facebook and various blogs.	Follower, reach, interaction, and page like data from micro-blogging site Twitter and social network site Facebook.	No data available.
Data features		Data from official TC Tubantia accounts on specific social media. A bench-mark is needed in order to monitor progress.	All public data on social media being indexed by Coosto is available retroactively until the year 2009.	Data from official TC Tubantia accounts on specific social media. A bench-mark is needed so that progress can be monitored.	No data available.
SOCIAL MEDIA NEWS INTERACTION PATTERN: SHARE WITH					
Organizational objective		Increase reach			
KPI		Potential reach	Browsers – number of shares ratio	Browsers via social media – number of shares ratio	
Info	Source	Data social media monitoring tool Coosto	Data social media monitoring tool Coosto / Data ComScore web analytics	Data ComScore web analytics / Data social media monitoring tool Coosto	
Type of data		Data from a range of social media, including microblogging site Twitter and social network site Facebook.	Data from a range of social media, including microblogging site Twitter and social network site Facebook combined with TC Tubantia web analytics data to compute a ratio.	Data from a range of social media, including microblogging site Twitter and social network site Facebook combined with TC Tubantia web analytics data to compute a ratio.	
Data features		All public data on social media being indexed by Coosto is available retroactively until the year 2009.	All public data on social media being indexed by Coosto is available retroactively until the year 2009. Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created.	All public data on social media being indexed by Coosto is available retroactively until the year 2009. Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created.	
SOCIAL MEDIA NEWS INTERACTION PATTERN: SHARED TO					
Organizational objective		Increase reach			
KPI		Browsers – returning browsers ratio	Browsers via social media – returning browsers via social media ratio	Browsers – browsers via social media ratio	
Info	Source	Data ComScore web analytics	Data ComScore web analytics	Data ComScore web analytics	
Type of data		Web analytics data from a specific TC Tubantia website or webpage. To measure and	Web analytics data from a specific TC Tubantia website or webpage. To measure and	Web analytics data from a specific TC Tubantia website or webpage. To measure and	

		compare more accurately, two metrics are combined to compute a ratio	compare more accurately, two metrics are combined to compute a ratio	compare more accurately, two metrics are combined to compute a ratio		
Data features		Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created.	Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created.	Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created.		
CREEREN						
Organizational objective		Provide input / co-creation				
KPI		UGC creation attempts	Amount of UGC	Browsers – amount of UGC ratio		
Info	Source	This KPI can't be measured using the tools available for the study.	This KPI can't be measured using the tools available for the study.	This KPI can't be measured using the tools available for the study.		
Type of data		No data available.	No data available.	No data available.		
Data features		No data available.	No data available.	No data available.		
SOCIAL MEDIA NEWS INTERACTION PATTERN: (READ) COMMENTS						
Organizational objective		Facilitate interaction / relational exchange				
KPI		Number of comments	Number of unique posters	Length of comments	Impressions – comments ratio	
Info	Source	Web data	Web data	Web data	Data ComScore web analytics / Web data	
Type of data		Publicly available data from the TC Tubantia website and webpages.	Publicly available data from the TC Tubantia website and webpages.	Publicly available data from the TC Tubantia website and webpages.	Web analytics data from a specific TC Tubantia website or webpage combined with publicly available data from the TC Tubantia website.	
Data features		Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of comments can be retrieved for every individual article. Data is available retroactively as long as the webpage containing the article concerned is online.	Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of unique commenters must be counted manually, as this figure isn't readily available. Data is available retroactively as long as the webpage concerned is online.	Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The length of comments must be computed manually, as this figure isn't readily available. Data is available retroactively as long as the webpage concerned is online.	Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created. Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of comments can be retrieved for every individual article. Data is available retroactively as long as the webpage containing the article concerned is online.	
SOCIAL MEDIA NEWS INTERACTION PATTERN: (READ) CONVERSATION						
Organizational objective		Facilitate interaction / relational exchange				
KPI		Number of comments	Number of unique posters	Number of conversations	Length of conversations	Impressions – conversations ratio

Info	Source	Web data	Web data	Web data	Web data	Data ComScore web analytics / Web data
Type of data		Publicly available data from the TC Tubantia website and webpages.	Publicly available data from the TC Tubantia website and webpages.	Publicly available data from the TC Tubantia website and webpages.	Publicly available data from the TC Tubantia website and webpages.	Web analytics data from a specific TC Tubantia website or webpage combined with publicly available data from the TC Tubantia website.
Data features		Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of comments can be retrieved for every individual article. Data is available retroactively as long as the webpage containing the article concerned is online.	Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of unique commenters must be counted manually, as this figure isn't readily available. Data is available retroactively as long as the webpage concerned is online.	Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of conversations must be counted manually, as this figure isn't readily available. Data is available retroactively as long as the webpage containing the article concerned is online.	Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The length of comments must be computed manually, as this figure isn't readily available. Data is available retroactively as long as the webpage concerned is online.	Web analytics data from ComScore is available retroactively to the day the web analytics package was first used on the concerning website or the day the webpage in question was created. Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of comments can be retrieved for every individual article. Data is available retroactively as long as the webpage containing the article concerned is online.

**SOCIAL MEDIA NEWS INTERACTION PATTERN: RATE**

Organizational objective		Give audience voice				
KPI		Number of ratings / votes			Valence of ratings / votes	
Info	Source	This KPI can't be measured using the tools available for the study.			This KPI can't be measured using the tools available for the study.	
Type of data		No data available.			No data available.	
Data features		No data available.			No data available.	

**SOCIAL MEDIA INTERACTION PATTERN: TAGGING / BROWSE USING TAGS**

Organizational objective		Findability				
KPI		Number of tags				
Info	Source	Web data				
Type of data		Publicly available data from the TC Tubantia website and webpages.				
Data features		Data from the TC Tubantia website and webpages is publicly available through any webbrowser. The number of tags used to describe the contents of an article must be counted manually, as this figure isn't readily available. Data is available retroactively as long as the webpage concerned is online.				

## Appendix B-2

CATEGORY: POLITICS	REGIONAL NEWS	NATIONAL NEWS	INTERNATIONAL NEWS
Article title	Pro Hengelo: vraagtekens bij sloop badhuis	Krantenoverzicht: Marijnissen: 45 zetels haalbaar voor SP	Republikeinse Conventie in Tampa begint
Article subject	Local political party 'Pro Hengelo' questions the City Councils decision to take an old bathing house its monumental status.	Party leader Marijnissen of the Dutch Socialist Party has said that his party could potentially get 45 seats in the Dutch senate on September 12th.	The Republican Party Congress in Tampa has started. Mitt Romney will be officially presented as Presedential candidate during the event.
Date published	August 24th 2012	August 28th 2012	August 28th 2012
Period of study			
<b>CONNECT</b>			
Increase reach / network			
Number of followers	No data available.	No data available.	No data available.
Potential reach	No data available.	No data available.	No data available.
<b>Customer loyalty</b>			
Number of followers	No data available.	No data available.	No data available.
Impressions to interactions ratio	No data available.	No data available.	No data available.
<b>SHARE</b>			
Increase reach			
Potential reach	7 social media users shared the news article. It was shared on Twitter and Facebook, Potential reach on both platforms combined was 11.191 users.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers to number of shares ratio	The article was viewed by a total of 902 unique browsers and shared via social media 7 times. This results in a browsers to number of shares ratio of 128,8 to 1. It means that on average there is 1 share for every 128,8 browsers viewed this article.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers via social media to number of shares ratio	17 browsers visited this article via social media. With a total of 7 shares, this brings the browsers via social media to number of shares ratio to 2,4 : 1. It means that on average, every share brought 2,4 browsers to the TC Tubantia website.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
<b>VISIT SHARED CONTENT</b>			
Increase reach			
Browsers to returning browsers ratio	A total of 902 unique browsers views this article, 678 of which were returning browsers. This	There were no visitors referred from social media.	There were no visitors referred from social media.

	results in a browsers to returning browsers ratio of 1,3 : 1. It means that roughly 77% of the browsers had visited the site before. 23% of the browsers visited the site for the first time.		
Browsers via social media to returning browsers via social media ratio	A total of 17 browsers were referred to the article via social media, 12 of which were returning visitors. This results in a browsers via social media to returning browsers via social media ratio of 1,4 to 1. It means that roughly 71% of browsers via social media had visited the site before. 29% of the browsers via social media visited the site for the first time.	There were no visitors referred from social media.	There were no visitors referred from social media.
Browsers to browsers via social media ratio	A total of 902 browsers viewed the article, 17 of which were referred to the article via social media. This results in a browsers to browsers via social media ratio of 53 : 1. It means that on average, out of every 53 browsers, 1 was referred to the article via social media. Roughly 2% of all visitors was referred via social media.	There were no visitors referred from social media.	There were no visitors referred from social media.
<b>CREATE</b>			
Provide input / co-creation			
Number of creation attempts	No data available.	No data available.	No data available.
Amount of user generated content	No data available.	No data available.	No data available.
Browsers to amount of user generated content ratio	No data available.	No data available.	No data available.
<b>COMMENT / READ COMMENTS</b>			
Facilitate interaction / relational exchange			
Number of comments	15 comments were posted in reaction to the article, in a period of two days.	20 comments were posted in reaction to the article, in a period of three hours.	1 comment was posted in reaction to the article.
Number of unique posters	A total of 14 users left a comment on the article. This means that there was one user who left more than one comment.	A total of 17 users left a comment on the article. There were two users who left multiple separate comments.	Because just one comment was posted, there was just one user who left a comment.
Length of comments	Comments on the article had a length ranging from 1 to 6 phrases. The average comment length was 3,5 phrases.	Comments on the article had a length ranging from 1 to 9 phrases. The average comment length was 4,2 phrases.	The comment on the article had a length of 6 phrases.
Impressions to comments ratio	The article was viewed a total of 1.423 times. 15 comments	The article was viewed a total of 92 times. 20 comments	The article was viewed a total of 9 times. 1 comment was

	were posted in reaction to the article. This results in an impression to comments ratio of 94,9 : 1. This means that on average, for every 94,9 views, one comment was posted.	were posted in reaction to the article. This results in an impression to comments ratio of 4,6 : 1. This means that on average, for every 4,6 views, one comment was posted.	posted in reaction to the article. This results in an impression to comments ratio of 9 : 1. This means that on average, for every 9 views, one comment was posted.
Impressions to unique browsers ratio	The article was viewed a total of 1.423 times. 902 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,6 : 1. This means that, on average, each browser viewed the article 1,6 times.	The article was viewed a total of 92 times. 58 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,6 : 1. This means that, on average, each browser viewed the article 1,6 times.	The article was viewed a total of 9 times. 7 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,3 : 1. This means that, on average, each browser viewed the article 1,3 times.
Unique browsers to unique posters ratio	902 unique browsers viewed the article, 14 of which posted one or more comments. This results in a unique browsers to unique posters ratio of 64,4 : 1. It means that out of every 64,4 browsers, one posted a comment to the article.	58 unique browsers viewed the article, 17 of which posted one or more comments. This results in a unique browsers to unique posters ratio of 3,4 : 1. It means that out of every 3,4 browsers, one posted a comment to the article.	7 unique browsers viewed the article, 1 of which posted a comment. This results in a unique browsers to unique posters ratio of 7 : 1. It means that out of every 7 browsers, one posted a comment to the article.
<b>CONVERSATION / READ CONVERSATION</b>			
Facilitate interaction / relational exchange			
Number of comments	15 comments were posted in reaction to the article, in a period of two days.	20 comments were posted in reaction to the article, in a period of three hours.	1 comment was posted in reaction to the article.
Number of unique posters	A total of 14 users left a comment on the article. This means that there was one user who left more than one comment.	A total of 17 users left a comment on the article. There were two users who left multiple separate comments.	Because just one comment was posted, there was just one user who left a comment.
Number of conversations	There are 3 separate conversations going on in the comment section of the article.	There are 6 separate conversations going on in the comment section of the article.	There are no conversations
Length of conversations	Conversations in the comment section of the article lasted 1 to 2 posts.	Conversations in the comment section of the article lasted 1 post.	There are no conversations
Impressions to conversations ratio	The article was viewed a total of 1.423 times. 3 separate conversations were going on in the comment section of the article. This results in an impression to conversations ratio of 474,3 : 1. This means that on average, for every 474,3 views, one conversation was held.	The article was viewed a total of 1.423 times. 3 separate conversations were going on in the comment section of the article. This results in an impression to conversations ratio of 9,7 : 1. This means that on average, for every 9,7 views, one conversation was held.	There are no conversations
<b>RATE / VOTE</b>			
Give audience voice			
Number of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
Valence of ratings	Ratings aren't implemented in	Ratings aren't implemented in	Ratings aren't implemented in



	TC Tubantia's website.	TC Tubantia's website.	TC Tubantia's website.
TAGGING / BROWSE USING TAGS			
Findability			
Number of tags	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.
Conclusion			

## Appendix B-3

CATEGORY: SOCIETY			
Article title	1495 zonnepanelen op gemeentedaken	420 criminele gastarbeiders het land uitgezet	Belgie wacht op vrijlating Michelle Martin
Article subject	The city of Enschede is going to place a total of 1495 solar panels on the roofs of public buildings. The solar panels are placed not only to generate clean energy, but also to reduce CO-2 levels in the city.	In a year time a total of 420 labor migrants were deported because they had engaged in criminal activity.	In Belgium, Marc Dutroux's ex-wife Michelle Martin is about to be released from prison. She plans to join a monastery.
Date published	August 26th 2012	August 28th 2012	August 28th 2012
Period of study			
CONNECT			
Increase reach / network			
Number of followers	No data available.	No data available.	No data available.
Potential reach	No data available.	No data available.	No data available.
Customer loyalty			
Number of followers	No data available.	No data available.	No data available.
Impressions to interactions ratio	No data available.	No data available.	No data available.
SHARE			
Increase reach			
Potential reach	14 social media users shared the news article. It was shared on Twitter and Facebook, Potential reach on both platforms combined was 18.518 users.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers to number of shares ratio	The article was viewed by a total of 346 unique browsers and shared via social media 14 times. This results in a browsers to number of shares ratio of 24,7 to 1. It means that on average there is 1 share for every 24,7 browsers viewed this article.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers via social media to number of shares ratio	28 browsers visited this article via social media. With a total of 14 shares, this brings the browsers via social media to number of shares ratio to 2 : 1. It means that on average, every share brought 2 browsers to the TC Tubantia website.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
VISIT SHARED CONTENT			
Increase reach			
Browsers to returning browsers ratio	A total of 346 unique browsers views this article, 215 of which	There were no visitors referred from social media.	There were no visitors referred from social media.

	were returning browsers. This results in a browsers to returning browsers ratio of 1,6 : 1. It means that roughly 63% of the browsers had visited the site before. 37% of the browsers visited the site for the first time.		
Browsers via social media to returning browsers via social media ratio	A total of 28 browsers were referred to the article via social media, 12 of which were returning visitors. This results in a browsers via social media to returning browsers via social media ratio of 2,3 to 1. It means that roughly 43% of browsers via social media had visited the site before. 57% of the browsers via social media visited the site for the first time.	There were no visitors referred from social media.	There were no visitors referred from social media.
Browsers to browsers via social media ratio	A total of 346 browsers viewed the article, 28 of which were referred to the article via social media. This results in a browsers to browsers via social media ratio of 12,3 : 1. It means that on average, out of every 12,3 browsers, 1 was referred to the article via social media. Roughly 8% of all visitors was referred via social media.	There were no visitors referred from social media.	There were no visitors referred from social media.
<b>CREATE</b>			
Provide input / co-creation			
Number of creation attempts	No data available.	No data available.	No data available.
Amount of user generated content	No data available.	No data available.	No data available.
Browsers to amount of user generated content ratio	No data available.	No data available.	No data available.
<b>COMMENT / READ COMMENTS</b>			
Facilitate interaction / relational exchange			
Number of comments	20 comments were posted in reaction to the article, in a period of two days.	37 comments were posted in reaction to the article, in a period of thirteen hours.	28 comments were posted in reaction to the article, in a period of fourteen hours.
Number of unique posters	A total of 14 users left a comment on the article. There were two users who left multiple separate comments.	A total of 34 users left a comment on the article. There were two users who left multiple separate comments.	A total of 22 users left a comment on the article. There were four users who left multiple separate comments.
Length of comments	Comments on the article had a length ranging from 1 to 10 phrases. The average comment length was 4,5 phrases.	Comments on the article had a length ranging from 1 to 14 phrases. The average comment length was 4,1 phrases.	Comments on the article had a length ranging from 1 to 11 phrases. The average comment length was 4,1 phrases.
Impressions to comments ratio	The article was viewed a total of 584 times. 20 comments	The article was viewed a total of 98 times. 34 comments	Browser and impression data for this article was corrupted.

	were posted in reaction to the article. This results in an impression to comments ratio of 29,2 : 1. This means that on average, for every 29,2 views, one comment was posted.	were posted in reaction to the article. This results in an impression to comments ratio of 2,6 : 1. This means that on average, for every 2,6 views, one comment was posted.	
Impressions to unique browsers ratio	The article was viewed a total of 584 times. 346 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,7 : 1. This means that, on average, each browser viewed the article 1,7 times.	The article was viewed a total of 98 times. 88 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,1 : 1. This means that, on average, each browser viewed the article 1,1 times.	Browser and impression data for this article was corrupted.
Unique browsers to unique posters	346 unique browsers viewed the article, 14 of which posted one or more comments. This results in a unique browsers to unique posters ratio of 24,7 : 1. It means that out of every 24,7 browsers, one posted a comment to the article.	88 unique browsers viewed the article, 34 of which posted one or more comments. This results in a unique browsers to unique posters ratio of 2,6 : 1. It means that out of every 2,6 browsers, one posted a comment to the article.	Browser and impression data for this article was corrupted.
<b>CONVERSATION / READ CONVERSATION</b>			
Facilitate interaction / relational exchange			
Number of comments	20 comments were posted in reaction to the article, in a period of two days.	37 comments were posted in reaction to the article, in a period of thirteen hours.	28 comments were posted in reaction to the article, in a period of fourteen hours.
Number of unique posters	A total of 14 users left a comment on the article. There were two users who left multiple separate comments.	A total of 34 users left a comment on the article. There were two users who left multiple separate comments.	A total of 22 users left a comment on the article. There were four users who left multiple separate comments.
Number of conversations	There are 7 separate conversations going on in the comment section of the article.	There are 7 separate conversations going on in the comment section of the article.	There are 12 separate conversations going on in the comment section of the article.
Length of conversations	Conversations in the comment section of the article lasted 1 to 3 posts	Conversations in the comment section of the article lasted 1 to 2 posts	Conversations in the comment section of the article lasted 1 to 3 posts
Impressions to conversations ratio	The article was viewed a total of 584 times. 7 separate conversations were going on in the comment section of the article. This results in an impression to conversations ratio of 41,7 : 1. This means that on average, for every 41,7 views, one conversation was held.	The article was viewed a total of 98 times. 7 separate conversations were going on in the comment section of the article. This results in an impression to conversations ratio of 14 : 1. This means that on average, for every 14 views, one conversation was held.	Browser and impression data for this article was corrupted.
<b>RATE / VOTE</b>			
Give audience voice			
Number of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
Valence of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.

TAGGING / BROWSE USING TAGS			
Findability			
Number of tags	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.
Conclusion			

## Appendix B-4

CATEGORY: ECONOMY			
Article title	Twente zorgt voor eigen banen	'Economie groeit 0,7 procent in september'	Apple wil verkoopverbod 8 producten Samsung
Article subject	Resreach on the subject of commuting shows that the region on Twente is self-sufficient and rather closed when it comes to employment.	Businesswebsite Z24 predicts a 0,7 percent growth of the Dutch economy in September. It is the first time this year that the Dutch economy shows growth.	Documents from a court of law show that Apple wants a temporary ban on 8 of Samsungs products in the United States.
Date published	August 28th 2012	August 27th 2012	August 27th 2012
Period of study			
CONNECT			
Increase reach / network			
Number of followers	No data available.	No data available.	No data available.
Potential reach	No data available.	No data available.	No data available.
Customer loyalty			
Number of followers	No data available.	No data available.	No data available.
Impressions to interactions ratio	No data available.	No data available.	No data available.
SHARE			
Increase reach			
Potential reach	7 social media users shared the news article. It was shared on Twitter and. Potential reach on this platform was 17.488 users.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers to number of shares ratio	The article was viewed by a total of 1.357 unique browsers and shared via social media 7 times. This results in a browsers to number of shares ratio of 193,8 to 1. It means that on average there is 1 share for every 193,8 browsers viewed this article.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers via social media to number of shares ratio	28 browsers visited this article via social media. With a total of 7 shares, this brings the browsers via social media to number of shares ratio to 4 : 1. It means that on average, every share brought 4 browsers to the TC Tubantia website.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
VISIT SHARED CONTENT			
Increase reach			
Browsers to returning browsers ratio	A total of 1.357 unique browsers views this article, 1.039 of which were returning browsers. This results in a	There were no visitors referred from social media.	There were no visitors referred from social media.

	browsers to returning browsers ratio of 1,3 : 1. It means that roughly 77% of the browsers had visited the site before. 23% of the browsers visited the site for the first time.		
Browsers via social media to returning browsers via social media ratio	A total of 28 browsers were referred to the article via social media, 17 of which were returning visitors. This results in a browsers via social media to returning browsers via social media ratio of 1,6 to 1. It means that roughly 63% of browsers via social media had visited the site before. 37% of the browsers via social media visited the site for the first time.	There were no visitors referred from social media.	There were no visitors referred from social media.
Browsers to browsers via social media ratio	A total of 1.357 browsers viewed the article, 28 of which were referred to the article via social media. This results in a browsers to browsers via social media ratio of 48,5 : 1. It means that on average, out of every 48,5 browsers, 1 was referred to the article via social media. Roughly 2% of all visitors was referred via social media.	There were no visitors referred from social media.	There were no visitors referred from social media.
<b>CREATE</b>			
Provide input / co-creation			
Number of creation attempts	No data available.	No data available.	No data available.
Amount of user generated content	No data available.	No data available.	No data available.
Browsers to amount of user generated content ratio	No data available.	No data available.	No data available.
<b>COMMENT / READ COMMENTS</b>			
Facilitate interaction / relational exchange			
Number of comments	8 comments were posted in reaction to the article, in a period of twelve hours.	8 comments were posted in reaction to the article, in a period of three days.	No comments posted.
Number of unique posters	A total of 8 users left a comment on the article. This means that there was no one who left more than one comment.	A total of 8 users left a comment on the article. This means that there was no one who left more than one comment.	No comments posted.
Length of comments	Comments on the article had a length ranging from 1 to 13 phrases. The average comment length was 5,5 phrases.	Comments on the article had a length ranging from 1 to 5 phrases. The average comment length was 2,1 phrases.	No comments posted.
Impressions to comments ratio	The article was viewed a total of 1.571 times. 8 comments	The article was viewed a total of 12 times. 8 comments were	No comments posted.

	were posted in reaction to the article. This results in an impression to comments ratio of 196,4 : 1. This means that on average, for every 196,4 views, one comment was posted.	posted in reaction to the article. This results in an impression to comments ratio of 1,5 : 1. This means that on average, for every 1,5 views, one comment was posted.	
Impressions to unique browsers ratio	The article was viewed a total of 1.571 times. 1.357 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,2 : 1. This means that, on average, each browser viewed the article 1,2 times.	The article was viewed a total of 12 times. 10 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,2 : 1. This means that, on average, each browser viewed the article 1,2 times.	The article was viewed a total of 15 times. 12 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,3 : 1. This means that, on average, each browser viewed the article 1,3 times.
Unique browsers to unique posters	1.357 unique browsers viewed the article, 8 of which posted a comment. This results in a unique browsers to unique posters ratio of 169,6 : 1. It means that out of every 169,6 browsers, one posted a comment to the article.	10 unique browsers viewed the article, 8 of which posted one or more comments. This results in a unique browsers to unique posters ratio of 1,3 : 1. It means that out of every 1,3 browsers, one posted a comment to the article.	No comments posted.
<b>CONVERSATION / READ CONVERSATION</b>			
Facilitate interaction / relational exchange			
Number of comments	8 comments were posted in reaction to the article, in a period of twelve hours.	8 comments were posted in reaction to the article, in a period of three days.	No comments posted.
Number of unique posters	A total of 8 users left a comment on the article. This means that there was no-one who left more than one comment.	A total of 8 users left a comment on the article. This means that there was one user who left more than one comment.	No comments posted.
Number of conversations	There were no conversations going on in the comment section of the article.	There were no conversations going on in the comment section of the article.	No comments posted.
Length of conversations	There were no conversations going on in the comment section of the article.	There were no conversations going on in the comment section of the article.	No comments posted.
Impressions to conversations ratio	There were no conversations going on in the comment section of the article.	There were no conversations going on in the comment section of the article.	No comments posted.
<b>RATE / VOTE</b>			
Give audience voice			
Number of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
Valence of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
<b>TAGGING / BROWSE USING TAGS</b>			
Findability			
Number of tags	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.



CATEGORY: SPORTS	REGIONAL NEWS	NATIONAL NEWS	INTERNATIONAL NEWS
Article title	Samuel Sanches niet in Profonde Almelo	'Gouden' Kromowidjojo is opgelucht en bij	Rodrigues verstevigt koppositie in Vuelta
Article subject	The Spanish cyclist Samuel Sanches will not be riding Almelo's Profonde, due to an falling incident in a round in France.	Dutch swimster Kromowidjojo, who won a golden medal at the London Olypics, is happy about her race, even though it wasn't perfect.	Joaquin Rodrigues has won the sixth stage of the Vuelta, strengthening his position as course leader.
Date published	August 27th 2012	August 2nd 2012	August 23rd 2012
Period of study			
<b>CONNECT</b>			
Increase reach / network			
Number of followers	No data available.	No data available.	No data available.
Potential reach	No data available.	No data available.	No data available.
Customer loyalty			
Number of followers	No data available.	No data available.	No data available.
Impressions to interactions ratio	No data available.	No data available.	No data available.
<b>SHARE</b>			
Increase reach			
Potential reach	This article wasn't publicly shared via social media.	1 social media user shared the news article. It was shared on Twitter, Potential reach on this platform was 214 users.	This article wasn't publicly shared via social media.
Browsers to number of shares ratio	This article wasn't publicly shared via social media.	The article was viewed by a total of 77 unique browsers and shared via social media once. This results in a browsers to number of shares ratio of 77 to 1. It means that on average there is 1 share for every 77 browsers viewed this article.	This article wasn't publicly shared via social media.
Browsers via social media to number of shares ratio	This article wasn't publicly shared via social media.	There were no visitors referred from social media.	This article wasn't publicly shared via social media.
<b>VISIT SHARED CONTENT</b>			
Increase reach			
Browsers to returning browsers ratio	A total of 38 unique browsers views this article, 23 of which were returning browsers. This results in a browsers to returning browsers ratio of 1,6 : 1. It means that roughly 63% of the browsers had visited the site before. 37% of the browsers visited the site for the first time.	There were no visitors referred from social media.	A total of 77 unique browsers views this article, 58 of which were returning browsers. This results in a browsers to returning browsers ratio of 1,3 : 1. It means that roughly 77% of the browsers had visited the site before. 23% of the browsers visited the site for the first time.
Browsers via social media to returning browsers via social media ratio	A total of 1 browser was referred to the article via social media, which was a returning visitor. This results in a	There were no visitors referred from social media.	A total of 1 browser was referred to the article via social media, which was a returning visitor. This results in a

	browsers via social media to returning browsers via social media ratio of 1 to 1. It means that all browsers via social media had visited the site before. None of the browsers via social media visited the site for the first time.		browsers via social media to returning browsers via social media ratio of 1 to 1. It means that all browsers via social media had visited the site before. None of the browsers via social media visited the site for the first time.
Browsers to browsers via social media ratio	A total of 38 browsers viewed the article, 1 of which was referred to the article via social media. This results in a browsers to browsers via social media ratio of 38 : 1. It means that on average, out of every 38 browsers, 1 was referred to the article via social media. Roughly 2,5% of all visitors was referred via social media.	There were no visitors referred from social media.	A total of 77 browsers viewed the article, 1 of which was referred to the article via social media. This results in a browsers to browsers via social media ratio of 77 : 1. It means that on average, out of every 77 browsers, 1 was referred to the article via social media. Roughly 1% of all visitors was referred via social media.
<b>CREATE</b>			
Provide input / co-creation			
Number of creation attempts	No data available.	No data available.	No data available.
Amount of user generated content	No data available.	No data available.	No data available.
Browsers to amount of user generated content ratio	No data available.	No data available.	No data available.
<b>COMMENT / READ COMMENTS</b>			
Facilitate interaction / relational exchange			
Number of comments	No comments posted.	No comments posted.	No comments posted.
Number of unique posters	No comments posted.	No comments posted.	No comments posted.
Length of comments	No comments posted.	No comments posted.	No comments posted.
Impressions to comments ratio	No comments posted.	No comments posted.	No comments posted.
Impressions to unique browsers ratio	No comments posted.	No comments posted.	No comments posted.
Unique browsers to unique posters	No comments posted.	No comments posted.	No comments posted.
<b>CONVERSATION / READ CONVERSATION</b>			
Facilitate interaction / relational exchange			
Number of comments	No comments posted.	No comments posted.	No comments posted.
Number of unique posters	No comments posted.	No comments posted.	No comments posted.
Number of conversations	No comments posted.	No comments posted.	No comments posted.
Length of conversations	No comments posted.	No comments posted.	No comments posted.
Impressions to conversations ratio	No comments posted.	No comments posted.	No comments posted.
<b>RATE / VOTE</b>			
Give audience voice			
Number of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.

Valence of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
TAGGING / BROWSE USING TAGS			
Findability			
Number of tags	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.
Conclusion			

## Appendix B-5

CATEGORY: ENTERTAINMENT			
Article title	'Tremelo Theun' derde bij WK luchtgitaar	Sterren springen maakt SBS blij	'Russell Brand gek op Spice Girl Geri Halliwell'
Article subject	Theun de Jong (aka Tremelo Theun) has earned third place at the world championship air guitar in Oulo, Finland.	SBS is very happy with viewing numbers for their show 'Sterren springen' (Stars jump).	The Daily Star writes that comedian and actor Russell Brand fancies Spice Girl Geri Halliwell.
Date published	August 25th 2012	August 28th 2012	August 27th 2012
Period of study			
CONNECT			
Increase reach / network			
Number of followers	No data available.	No data available.	No data available.
Potential reach	No data available.	No data available.	No data available.
Customer loyalty			
Number of followers	No data available.	No data available.	No data available.
Impressions to interactions ratio	No data available.	No data available.	No data available.
SHARE			
Increase reach			
Potential reach	5 social media users shared the news article. It was shared on Twitter. Potential reach on this platform was 11.510 users.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers to number of shares ratio	The article was viewed by a total of 1.089 unique browsers and shared via social media 5 times. This results in a browsers to number of shares ratio of 217,8 to 1. It means that on average there is 1 share for every 217,8 browsers viewing this article.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
Browsers via social media to number of shares ratio	24 browsers visited this article via social media. With a total of 5 shares, this brings the browsers via social media to number of shares ratio to 4,8 : 1. It means that on average, every share brought 4,8 browsers to the TC Tubantia website.	This article wasn't publicly shared via social media.	This article wasn't publicly shared via social media.
VISIT SHARED CONTENT			
Increase reach			
Browsers to returning browsers ratio	A total of 1.089 unique browsers views this article, 855 of which were returning browsers. This results in a browsers to returning browsers ratio of 1,3 : 1. It	There were no visitors referred from social media.	There were no visitors referred from social media.

	means that roughly 77% of the browsers had visited the site before. 23% of the browsers visited the site for the first time.		
Browsers via social media to returning browsers via social media ratio	A total of 24 browsers were referred to the article via social media, 15 of which were returning visitors. This results in a browsers via social media to returning browsers via social media ratio of 1,6 to 1. It means that roughly 63% of browsers via social media had visited the site before. 37% of the browsers via social media visited the site for the first time.	There were no visitors referred from social media.	There were no visitors referred from social media.
Browsers to browsers via social media ratio	A total of 1.089 browsers viewed the article, 24 of which were referred to the article via social media. This results in a browsers to browsers via social media ratio of 45,4 : 1. It means that on average, out of every 45,4 browsers, 1 was referred to the article via social media. Roughly 2% of all visitors was referred via social media.	There were no visitors referred from social media.	There were no visitors referred from social media.
<b>CREATE</b>			
Provide input / co-creation			
Number of creation attempts	No data available.	No data available.	No data available.
Amount of user generated content	No data available.	No data available.	No data available.
Browsers to amount of user generated content ratio	No data available.	No data available.	No data available.
<b>COMMENT / READ COMMENTS</b>			
Facilitate interaction / relational exchange			
Number of comments	20 comments were posted in reaction to the article, in a period of four days.	No comments posted.	No comments posted.
Number of unique posters	A total of 18 users left a comment on the article. There were two users who left multiple separate comments.	No comments posted.	No comments posted.
Length of comments	Comments on the article had a length ranging from 1 to 6 phrases. The average comment length was 2,7 phrases.	No comments posted.	No comments posted.
Impressions to comments ratio	The article was viewed a total of 1.903 times. 20 comments were posted in reaction to the article. This results in an impression to comments ratio	No comments posted.	No comments posted.

	of 95,2 : 1. This means that on average, for every 95,2 views, one comment was posted.		
Impressions to unique browsers ratio	The article was viewed a total of 1.903 times. 1.089 unique browsers viewed the article. This results in an impressions to unique browsers ratio of 1,7 : 1. This means that, on average, each browser viewed the article 1,7 times.	No comments posted.	No comments posted.
Unique browsers to unique posters	1.089 unique browsers viewed the article, 18 of which posted a comment. This results in a unique browsers to unique posters ratio of 60,5 : 1. It means that out of every 60,5 browsers, one posted a comment to the article.	No comments posted.	No comments posted.
<b>CONVERSATION / READ CONVERSATION</b>			
Facilitate interaction / relational exchange			
Number of comments	20 comments were posted in reaction to the article, in a period of two days.	No comments posted.	No comments posted.
Number of unique posters	A total of 14 users left a comment on the article. This means that there was one user who left more than one comment.  18	No comments posted.	No comments posted.
Number of conversations	5	No comments posted.	No comments posted.
Length of conversations	1 post	No comments posted.	No comments posted.
Impressions to conversations ratio	380,6 : 1	No comments posted.	No comments posted.
<b>RATE / VOTE</b>			
Give audience voice			
Number of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
Valence of ratings	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.	Ratings aren't implemented in TC Tubantia's website.
<b>TAGGING / BROWSE USING TAGS</b>			
Findability			
Number of tags	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.	Tags aren't implemented in TC Tubantia's website.
<b>Conclusion</b>			
Conclusion			

## Appendix C: Online questionnaire

- Informatie
  - Ik [...] om informatie te vinden
  - Ik [...] om nieuwe informatiebronnen te vinden
  - Ik [...] om breaking nieuws te vinden
  - Ik [...] om nieuwe dingen te ontdekken
  - Ik [...] om op de hoogte te blijven
  - Ik [...] om toegang tot experts te krijgen
- Interactie
  - Ik [...] om bestaande vriendschappen verder te ontwikkelen
  - Ik [...] om nieuwe vrienden te maken
  - Ik [...] om me betrokken te voelen bij anderen
  - Ik [...] om bestaande vriendschappen te onderhouden
  - Ik [...] om ideeën uit te wisselen met anderen
  - Ik [...] om anderen attent te maken op interessante informatie
  - Ik [...] om te socializen
  - Ik [...] om een online gesprek te openen
  - Ik [...] om sociale interactie te hebben
  - Ik [...] om informatie uit te wisselen met anderen
- Entertainment / escape
  - Ik [...] om leuke dingen te vinden
  - Ik [...] om verveling tegen te gaan
  - Ik [...] om geprikkeld te worden
  - Ik [...] om de tijd te doden
  - Ik [...] omdat ik dat leuk vind
  - Ik [...] om afleiding te hebben van andere bezigheden
  - Ik [...] om mezelf te vermaken
  - Ik [...] omdat het een gewoonte van me is
- Identiteit
  - Ik [...] om de mening van een ander te lezen
  - Ik [...] om te laten zien dat ik op de hoogte ben
  - Ik [...] om te laten zien wat mij bezig houdt
  - Ik [...] om me te profileren als kenner op het onderwerp
  - Ik [...] om mijn mening met die van anderen te vergelijken
  - Ik [...] omdat iedereen dat doet
  - Ik [...] om mijn mening over een onderwerp te geven
  - Ik [...] om een mening te vormen over belangrijke onderwerpen

- introductie

Please provide the following information:

Sex: male/female

Age: [...] years

How often do you visit an online news source? [one answer selectable]

- Multiple times per day
- Daily
- Multiple times per week
- Weekly
- Multiple times per month
- Monthly
- Less than once a month

On which of these social media are you active at least once a week? [multiple answers selectable]

- Facebook
- Twitter
- Hyves
- Google+
- YouTube
- Flickr
- Digg
- Pinterest
- Geen



## Connect

The 'connect' interaction means that you engage in, and make explicit, a relationship with another user on social media. Examples of this interaction in online news include 'liking' a news organizations' Facebook page, following a journalist or news organization on Twitter, and subscribing to a news organizations' YouTube-channel.

How often do you connect to a news source on social media?

[ Never / rarely / sometimes / regularly / often ]

I connect to a news source on social media... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
to echange information with others  
te develop existing friendships  
to relieve boredom  
to be stimulated  
because I like it  
to be distracted from other activities  
to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts

## Share content

This interaction is about sharing content (e.g. a link, video or image) with your friends or followers on social media. You can share content directly, without adding anything, or you can add a comment. Examples of this interaction in online news include sharing or liking the link to a news article on Facebook, and sharing or retweeting the link to a news article on Twitter. Many news websites have buttons to make sharing on social media easier.

How often do you share newsrelated content with your friends or followers on social media?

[ Never / rarely / sometimes / regularly / often ]

I share news with my friends or followers on social media... [ fully disagree – fully agree ] – 5 point Likert scale

- to form an opinion on important issues
- to find new sources of information
- to entertain myself
- have engage in social interaction
- to find breaking news
- to show what interests me
- to maintain existing friendships
- to find information
- to give my opinion on a subject
- to make new friends
- to stay up-to-date
- to compare my opinion to those of others
- to pass the time
- to exchange ideas with others
- to socialize
- to start an online conversation
- to show that I am up-to-date
- to echange information with others
- te develop existing friendships
- to relieve boredom
- to be stimulated
- because I like it
- to be distracted from other activities
- to show interesting information to others
- because it is a habit of mine
- to find nice things
- to feel involved with others
- to read others' opinions
- because everyone does it
- to present myself as an expert on the subject
- to find new things
- to gain access to experts

### Visiting shared content

This interaction is about visiting content which is shared to you by one of your friends or someone you follow on social media. An example if visiting sharing content in online news is clicking the link to a news article shared to you by someone else on Facebook or Twitter.

How often do you visit newsrelated content which is shared to you by others on social media?

[ Never / rarely / sometimes / regularly / often ]

I visit newsrelated content shared to me by others on social media... [ fully disagree – fully agree

] – 5 point Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
to echange information with others  
te develop existing friendships  
to relieve boredom  
to be stimulated  
because I like it  
to be distracted from other activities  
to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts

## Creating content

The interaction 'content creation' is about placing new sharable content, such as text, photos or videos. The emphasis here is on the initiative. Examples of this interaction in online news include placing an @ mention to a journalist or news organization on Twitter, posting content on the Facebook page of a news organization, sending photos or video to a (web) editor, or starting a new forum discussion.

How often do you create newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I create newsrelated content... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
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to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts

## Commenting

This interaction is about leaving a message in response to a particular piece of content. Commenting differs from content creation in the following way. Creating content delivers new, sharable content. Commenting makes this content richer, but the comment is never shareable on itsself without sharing the original content. Examples of this interaction in online news include commenting on an article, post content on the Facebook page of a news organization, responding to a tweet from a journalist or news organization on Twitter, or leaving a (video) comment on a YouTube video.

How often do you comment on newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I comment on newsrelated content... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
 to find new sources of information  
 to entertain myself  
 have engage in social interaction  
 to find breaking news  
 to show what interests me  
 to maintain existing friendships  
 to find information  
 to give my opinion on a subject  
 to make new friends  
 to stay up-to-date  
 to compare my opinion to those of others  
 to pass the time  
 to exchange ideas with others  
 to socialize  
 to start an online conversation  
 to show that I am up-to-date  
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 because I like it  
 to be distracted from other activities  
 to show interesting information to others  
 because it is a habit of mine  
 to find nice things  
 to feel involved with others  
 to read others' opinions  
 because everyone does it  
 to present myself as an expert on the subject  
 to find new things  
 to gain access to experts

## Reading comments

This interaction is about reading comments left by others in response to a particular piece of content. Examples of this interaction in online news include reading comments on an article, or reading comments on a news organizations' Facebook page.

How often do you read others' comments on newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I read others' comments on newsrelated content... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
 to find new sources of information  
 to entertain myself  
 have engage in social interaction  
 to find breaking news  
 to show what interests me  
 to maintain existing friendships  
 to find information  
 to give my opinion on a subject  
 to make new friends  
 to stay up-to-date  
 to compare my opinion to those of others  
 to pass the time  
 to exchange ideas with others  
 to socialize  
 to start an online conversation  
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 to echange information with others  
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 to show interesting information to others  
 because it is a habit of mine  
 to find nice things  
 to feel involved with others  
 to read others' opinions  
 because everyone does it  
 to present myself as an expert on the subject  
 to find new things  
 to gain access to experts

## Conversing

This interaction means that there is a conversation going on in the comment section. Just as is the case with the interaction 'commenting', a reaction is posted. The difference is that in the interaction 'conversing' a response is given to a previous response, and not to the original content, as is the case with 'comment'. Examples of this interaction in online news include participating in a discussion in the comment section of an article, or to exchange multiple @ mention messages with a journalist or news organization through Twitter.

How often do you engage in an online conversation on the occasion of newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I engage in newsrelated online conversation... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
 to find new sources of information  
 to entertain myself  
 have engage in social interaction  
 to find breaking news  
 to show what interests me  
 to maintain existing friendships  
 to find information  
 to give my opinion on a subject  
 to make new friends  
 to stay up-to-date  
 to compare my opinion to those of others  
 to pass the time  
 to exchange ideas with others  
 to socialize  
 to start an online conversation  
 to show that I am up-to-date  
 to exchange information with others  
 to develop existing friendships  
 to relieve boredom  
 to be stimulated  
 because I like it  
 to be distracted from other activities  
 to show interesting information to others  
 because it is a habit of mine  
 to find nice things  
 to feel involved with others  
 to read others' opinions  
 because everyone does it  
 to present myself as an expert on the subject  
 to find new things  
 to gain access to experts

### Reading conversations

This interaction is about reading conversations or threads by others, without taking part in it. Examples of this interaction in online news include reading a discussion in the comments section of an article, or reading a conversation that someone else had with a journalist or news organization through Twitter.

How often do you read newsrelated online conversations held by others?

[ Never / rarely / sometimes / regularly / often ]

I read newsrelated online conversations held by others... [ fully disagree – fully agree ] – 5 point

Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
to echange information with others  
te develop existing friendships  
to relieve boredom  
to be stimulated  
because I like it  
to be distracted from other activities  
to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts



## Rate

This interaction provides the possibility to rate content, products and profiles. Examples of this interaction in online news include a + / - rating system and liking comments in Disqus.

How often do you rate newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I rate newsrelated content... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
to echange information with others  
te develop existing friendships  
to relieve boredom  
to be stimulated  
because I like it  
to be distracted from other activities  
to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts

## Tag

This interaction describes various applications of tagging on social platforms. Through tagging, you can add descriptive keywords to specific content, making a descriptive "tag cloud". Examples of online news include tags to an item, and the use of Twitter hashtags in the (re) Tweeting news related content.

How often do you tag newsrelated content?

[ Never / rarely / sometimes / regularly / often ]

I tag newsrelated content... [ fully disagree – fully agree ] – 5 point Likert scale

to form an opinion on important issues  
to find new sources of information  
to entertain myself  
have engage in social interaction  
to find breaking news  
to show what interests me  
to maintain existing friendships  
to find information  
to give my opinion on a subject  
to make new friends  
to stay up-to-date  
to compare my opinion to those of others  
to pass the time  
to exchange ideas with others  
to socialize  
to start an online conversation  
to show that I am up-to-date  
to echange information with others  
te develop existing friendships  
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to be stimulated  
because I like it  
to be distracted from other activities  
to show interesting information to others  
because it is a habit of mine  
to find nice things  
to feel involved with others  
to read others' opinions  
because everyone does it  
to present myself as an expert on the subject  
to find new things  
to gain access to experts

### Browse using tags

This interaction describes the use of tags to find content on a specific topic. By browsing through the use of tags you can view all messages related to a topic. Examples of this interaction in online news include a clicking a tag used with an article, and browsing Twitter using hashtags to find tweets on a specific newsrelated topic.

How often do you browse newsrelated content using tags?

[ Never / rarely / sometimes / regularly / often ]

I browse newsrelated content using tags... [ fully disagree – fully agree ] – 5 point Likert scale

- to form an opinion on important issues
- to find new sources of information
- to entertain myself
- have engage in social interaction
- to find breaking news
- to show what interests me
- to maintain existing friendships
- to find information
- to give my opinion on a subject
- to make new friends
- to stay up-to-date
- to compare my opinion to those of others
- to pass the time
- to exchange ideas with others
- to socialize
- to start an online conversation
- to show that I am up-to-date
- to echange information with others
- te develop existing friendships
- to relieve boredom
- to be stimulated
- because I like it
- to be distracted from other activities
- to show interesting information to others
- because it is a habit of mine
- to find nice things
- to feel involved with others
- to read others' opinions
- because everyone does it
- to present myself as an expert on the subject
- to find new things
- to gain access to experts