

# Competing-Complementarity of Social Media on News Organizations

Shailesh Palekar<sup>a,\*</sup>, Darshana Sedera<sup>b</sup>

<sup>a</sup> *Doctoral Researcher, Information Systems School, Queensland University of Technology (QUT), Australia.*

<sup>b</sup> *Associate Professor, Information Systems School, Queensland University of Technology (QUT), Australia.*

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## ABSTRACT

The dynamic capabilities of social media are changing the nature of contemporary news by allowing users to communicate and create content, deliver and share newsworthy information, and consume news. News organizations engage with social media because this computer-mediated tool provides an alternative platform for delivering news and connecting with global audiences. This role of social media is conceptualized as its complementarity. However, when mass user-generated-content is constantly shared with other users, more users are attracted to indulge in news-seeking activities on social media. This phenomenon potentially fulfills users' news requirements on social media, which is contrary to what news companies envisioned when they began engaging with social media. This dichotomous role of social media, providing complementarity and showing the potential for becoming a superior news medium, is conceptualized as its competing-complementarity. This paper offers preliminary evidence of competing-complementarity by analyzing the news consumption of individuals. Such consumption is explained through the theoretical perspective of punctuated equilibrium by conceptualizing news consumption as a deep structure radically impacted by a disruptive technology. Although social media benefit news organizations, its competing potential poses serious challenges to their monopolistic controls on news production, distribution, readership, and revenue generation.

*Keywords:* Social Media, Competing-Complementarity, News, Punctuated Equilibrium Theory, News Consumption

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## I . Introduction

The Internet evoked organizations to embrace e-commerce or at least have a web presence in some form to show their business capabilities and competitiveness (Scarle et al., 2012). Similarly, social media, such as Facebook, Twitter, LinkedIn and

Yammer, have influenced businesses to upscale their business value and economic activities (Vuori, 2012) and make them interactive and socially collaborative. Social media is defined as digital social networks where users have a profile, access content digitally, articulate a list of users with whom they share a relational connection, view and traverse such con-

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\*Corresponding Author. E-mail: [s.palekar@qut.edu.au](mailto:s.palekar@qut.edu.au) Tel: 61414768100

nections including those made by other users, and create and exchange content (Boyd and Ellison, 2007; Kane et al., 2014; Kaplan and Haenlein, 2010). Social media benefit businesses by providing capabilities based on 'network economics' and 'ubiquitous accessibility' (Rosemann et al., 2011), which have resulted in improving internal operations (Agarwal et al., 2008). For example, more than 80% of Fortune 500® businesses use Yammer as an enterprise social network for fast information sharing and decision-making (Yammer, 2012). The exploitative use of social media by organizations has also enhanced existing processes and functions of firms and established new business models (Subramani, 2004; Vuori, 2012). For instance, through Facebook, Delta airline offers flight reservations and check-in services<sup>1)</sup> (The Independent, 2010) while the Commonwealth Bank in Australia offers payment services (Commonwealth Bank, 2012). Users of social media have also gained remarkable visibility by generating content, which is 'rivalling content produced by professional agencies' (Zeng and Wei, 2013). Such powerful attributes of social media not only reveal the distinct advantages and benefits it offers but also show prowess as an information and communication media (Grace-Farfaglia et al., 2006).

Despite the positive appeal of social media, practitioners and professionals have cautioned using it, as it can potentially affect a firm's reputation, identity and relationships (Kietzmann et al., 2011). For example, contrary to popular beliefs, Kwak et al. (2010) has questioned whether Twitter is a social network or a news medium based on the 'topological characteristics of Twitter and its power as a new medium of information sharing.' Scholars in the Information

Systems (IS) domain highlighting the importance and need for more fundamental research on the strengths and drawbacks of social media have called on researchers 'to make sense of these new dynamics' (Urquhart and Vaast, 2012). This paper contributes to that discussion and calls made by researchers for providing more theory-guided understanding on the precise innovative and dynamic role of social media.

Our study observes a unique phenomenon of social media, which is impacting news organisations. News companies started engaging with social media because it provided them an alternate platform for delivering news, connecting to masses globally that otherwise was not possible for the average local or regional news companies, and attracting the masses to their contemporary news mediums (e.g., newspaper, news channel on television, and news website). In addition, social media also provided story leads, eyewitness accounts, and access to people of repute (e.g., entertainers or politicians tweeting and posting on Facebook). Besides, it offered other newsworthy information created, produced or curated by the masses and deemed useful in producing or creating news stories. This utilitarian value of social media benefiting news companies (and other users) is conceptualized as its *complementarity*. Thus, social media complements news companies in the functions of news delivery and news sourcing. It also complements the news consumption and other news seeking activities of individuals that use it in addition to other sources for consuming news.

On the other hand, this study observes that when newsworthy information keeps building up in social media through user-generated-content (some of which is ironically provided by news companies themselves) and is constantly shared on social media, it attracts more individuals on social media that may or may not be indulging in news-seeking activities.

1) Retrieved Oct 12, 2013 <http://www.independent.co.uk/travel/news-and-advice/airline-ticket-booking-via-facebook-goes-live-2051888.html>

As a result, individuals on social media potentially fulfill their news requirements on social media and do not visit the contemporary news mediums of news organizations. For example, an individual may simply read news tweeted by CNN but not click on the news links provided by CNN or visit their television channel. This is contrary to what news companies envisioned would happen when people start engaging with social media for news. This role of social media, as a superior medium for news, triggered by mass users (including news companies) that use it for news seeking activities is conceptualized as its *competing* potential. Thus, we observe that social media competes with news companies as a news provider that produces voluminous news content and supported by mass readership. The goal of social media was never to compete with any company or complete the functions of news sourcing, delivery and consumption. Yet, its own utilitarian and social value and the social influence generated by people using it for news reflect its dichotomous role, which this study conceptualizes as the *competing-complementarity* of social media. This phenomenon presents a dilemma for news companies because their obvious goal was to benefit from the complementarity of social media by attracting people to their traditional news mediums. However, observations suggest otherwise based on decreasing readership and revenues. So, social media competes with the same news organizations that seek its complementarity by creating newsworthy content (generated by its users), delivering newsworthy content (shared and distributed by its users) and offering its own platform as a medium for consuming news. Thus, the objectives of this paper are:

- Conceptualizing competing-complementarity of social media

- Evidencing competing-complementarity of social media
- Explaining the impact of competing-complementarity of social media on news organizations

We conceptualise complementarity of social media using Teece (1986)'s notion of complementary assets (i.e., tangible goods and/or services that have Intellectual Property attributes and are perceived to be alike by all stakeholders). Rosemann et al. (2011) conceptualize social media<sup>2)</sup> as digital complementary assets based on their unique characteristics as digital public goods. They describe four characteristics of such goods, which we observe in social media: (i) non-excludability; (ii) non-rivalry; (iii) versatility; and (iv) positive network effects. Although we concur on such conceptualizations, the abstraction raises a pertinent question on whether digital public goods are entirely public and complementary or whether they also demonstrate competitive dispositions over time. We conceptualize the competing potential of social media by drawing on Porter(2001, 2008)'s work on competitive forces shaping strategy and business on the Internet using the dimensions of (i) operational effectiveness, (ii) strategic positioning, and (iii) complementing.

Traditional mainstream news organizations (e.g., newspaper companies, television broadcasters) present a unique context for understanding and evidencing competing-complementarity because they have been labelled as 'entirely disrupted' by social media (Aral et al., 2013). They are impacted by a very compelling, interactive and personalized digital media (i.e., social media), which is perceived as easy to use, valuable and credible (Bryant and Zillmann,

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2) Rosemann et al. (2011) refer to social media, such as Facebook and Twitter, as large digital service providers.

2009). For instance, although traditional news mediums (e.g., printed newspapers) are available on the Internet as independent websites (Karagiannopoulos et al., 2005), they (and the companies producing them) are becoming more visible, interactive and collaborative by delivering their news content through social media (Sundar, 2009; Vuori, 2012). News organizations also perceive social media's low cost, ubiquity, open access and instant connectivity to mass audiences as beneficial and valuable to their business. However, we observe that people are also moving away from traditional news mediums (e.g., newspapers) and instead, reading and sharing news directly on social media (Gil de Zúñiga et al., 2012). This indicates that despite the complementarity social media provide to news organizations, it also shows potential to compete with news organizations.

Using a grounded approach for evidencing and finding new insights on the competing-complementarity phenomenon, this study employs a qualitative research design. We follow the general tradition of interpretive enquiry and convenience sampling to understand the phenomenon and not generalize it to any target population or business. We collected data at two different points in time related to the news-seeking activities of individuals on social media and also through contemporary news mediums (e.g., television). The changes in the news consumption of people occurring as a result of competing-complementarity are explained through the theoretical lens of punctuated equilibrium. We posit that such changes could also be occurring internally within a news organization in relation to the functions of news delivery and news sourcing.

This conceptual paper depicts a unique phenomenon of social media, which we term as competing-complementarity. Although we do not empirically validate it, preliminary evidence through opin-

ioned data represents the phenomenon. The paper is structured as follows. The next section provides a broad-based review of literature on communication media and the contexts of those studies followed by the section on conceptualizing competing-complementarity of social media. The section following that focuses on the theoretical lens of punctuated equilibrium for explaining changes in the news seeking and consumption activities of individuals. That is then followed by the analysis of focus group discussions evidencing the competing-complementarity phenomenon. We end the paper by discussing future work, implications and the limitations of our study.

## II. Social Media as Communication Media

This section depicts how past studies have researched communication media and the various approaches and contexts used for studying their relationships with organizational communications. We argue that social media is similar to communication media, as it (a) performs functions similar to the communication media, such as bi-directional dissemination of information, influencing society and public opinion, and producing powerful effects (positive and negative) on mass audiences (Bryant and Zillmann, 2009), and (b) shows media effects that bring social and psychological changes in 'consumers of media message systems' (Bryant and Zillmann, 2009). Such effects on individuals are categorized as (i) behavioural effects that induce individuals to perform some actions or responses (e.g., responding to a news report through the 'like' utility provided by Facebook), (ii) attitudinal effects that shape individual and consumer beliefs, opinions, values (e.g., making an informed voting choice based on the num-

ber of tweets, followers or postings by individuals), (iii) cognitive effects, which result when news changes consumer thinking and knowledge (e.g., getting breaking news through Twitter), and (iv) emotional effects that arise, for example, by watching media (e.g., YouTube news videos) that produce feelings of anxiety, fear, joy or euphoria (Bryant and Zillmann, 2009).

In the Information Systems (IS) discipline, communication media has been studied by adopting different approaches and contexts. For example, Orlikowski (1992)'s structuration model of communication technology depicts duality where communication media is both, a product of and a medium for human action. Yates and Orlikowski (1992)'s study on the role of communication media identify two incongruent research streams exemplified by opposing views of the role of media where one focuses on media choice by studying the conditions that influence media options while the other centres on media effects (consequences) based on its use. Media choice posits communication media as a dependent variable and attempts to determine the reasons and outcomes of individual choices for using a specific media or medium (Yates and Orlikowski, 1992). For example, Carlson and Davis (1998) investigating media selection of managers and directors find that directors choose media based on access and ease of use while managers tend to lean on the ability of media to facilitate equivocality (i.e., resolve disagreements, conflicts). In this context, the capability of media is theorized as 'media richness' (Daft et al., 1987) where it is ranked on a continuum based on its capacity to provide cues, feedback, linguistic variety and personalization (Yates and Orlikowski, 1992). Media effects, on the other hand, are centred on the consequences of media use based on the structure of communication and processes. Dennis and

Kinney (1998) researching media effects of computer mediated (e.g., email) and video communication (both refer to media back then as new media) find that it provides fewer cues and lead to slower decision-making for less equivocal tasks. Such results defeat the key preposition of media richness theory of matching the richness of media to task equivocality. The theory has also been critiqued for its limitations on the rationality and objectivity of users (Yates and Orlikowski, 1992). Dennis et al. (2008) explicating the capabilities of communication media (e.g., email, voice mail, electronic conferencing) by expanding the original propositions of media synchronicity theory (Dennis and Valacich, 1999) contend that communication comprises of two primary processes: conveyance of information and convergence on its meaning. In doing so, Dennis et al. (2008) identify five media capabilities: transmission velocity, parallelism, symbol sets, rehearsability and reprocessability as potential structures of a medium that influences transmission and processing of information. The mentioned studies denote media as an enterprise-wide and bound communication system (e.g., telephone, email, video conferencing) but do not discuss how one medium complements another nor examine whether they compete with each other in the context of aiding organizational communications. In comparison, our paper focuses on explaining how social media as a mass communication media provides complementarity to news firm yet show the potential to compete with the same firms that seek its complementarity (note: the myriad social or cognitive factors that influence people to select or perceive social media use are beyond the scope of this paper).

Aral et al. (2013) advocates a semantic approach for researching social media by identifying four thematic areas of activities: (i) design and features of social media (Aral and Walker, 2011); (ii) strategy

and tactics - curating information, creating strategies and forming partnerships (Dutta, 2010); (iii) management and organization - allocating, deploying and managing resources required for interacting with social media; and (iv) measurement and value - explaining value and welfare generation through social media (Godes and Silva, 2012). In addition, Aral et al. (2013) identifies three discrete overlying units of analysis for investigating the mentioned areas of activities: (i) consumers and society; (ii) platforms and intermediaries; and (iii) firms and industries.

Other emerging studies on social media can be categorized into three broad areas: (a) benefits; (b) issues; and (c) conceptualizations. These studies focus on opportunities offered by social media (Culnam, 2010; Vuori, 2012), their environments and antecedents (Bonson and Flores, 2011; Kwak et al., 2010), and their conceptualizations highlighting prescriptive approaches for organizational engagement (Hopkins, 2012; Rosemann et al., 2011). In comparison, our study conceptualizes the role of social media and its impact on businesses. This differs, for example, from Rosemann et al (2011)'s study that conceptualizes social media as complementary digital assets and explains how firms can engage with them. Our work also differs, for example, from Hopkins (2012)'s study that conceptualizes social media (e.g., Facebook) as a new sales channel and a tool for capturing new information about markets.

Communications and journalism studies signify media as a collective of external mediums providing information and news (e.g., television, newspapers, news websites). Studies primarily focus on media effects relating to social contexts (Nabi and Oliver, 2009) including the social and psychological changes in consumers exposed to or actively engaged with news media and the uses and gratifications that news mediums provide (Katz et al.,

1973). Bryant and Zillmann (2009) categorize five types of media effects on individuals: (i) behavioural - performing some actions presented by media; (ii) attitudinal - shaping consumer beliefs, value and opinions; (iii) cognitive - changing consumer knowledge or thinking; (iv) emotional - producing fear, anxiety, euphoria; and (v) physiological - physical arousals and bodily effects. Past studies have also focused heavily on news consumption habits for correlating one medium (e.g., television) displacing another (e.g., newspaper) using several variables, such as time, cost, news content areas (e.g., politics, finance) and shift in activities (Ahlers, 2006; Dutta-Bergman, 2004; Lee and Leung, 2008; Yuan, 2011). However, those studies do not show how a medium can provide complementarity to another medium (e.g., can newspapers provide complementarity to radio broadcasters?). Rather, the notion underlying those studies is a medium displacing another based on social contexts related to a consumers' media use. Evolutionary changes in the media landscape have also been captured by studies focusing on the technological and the social progression of mankind (Fidler, 1997; Palekar and Sedera, 2012). Our study focuses on how social media capabilities and its underlying role offer distinct advantages and pose serious challenges to firms (news organisations being the context of the study). Reflecting on past media studies, building on the work of media researchers in the communications domain and motivated by calls for more robust theory-guided explanations of social media phenomenon, we investigate the competing-complementarity phenomenon of social media, which is largely unexplored and under-researched by past media, communication, journalism and IS studies.

### III. Conceptualizing Competing-Complementarity of Social Media

Social media has changed the fundamental functions of contemporary news organizations in the areas of (i) news sourcing: gathering information through story leads, confidential information, quotes and comments from independent, influential and observable sources (e.g., financial reports, people of repute) for creating news reports, and (ii) news delivery: publishing, broadcasting, uploading news reports to mediums, such as newspapers, television, radio, and news websites. It has also changed the way people consume news, which now includes reading tweets, sharing information (e.g., on LinkedIn) and posting news related links and information (e.g., on Facebook). Our conceptualization of the competing-complementarity phenomenon is based on several elements: (1) the understanding of social media as a communication medium; (2) limitations of business models and existing technologies of news organisations, which influence it to use social media for prime functions, such as news delivery and news sourcing (this is a major shift in traditional news functions, including news creation and production); (3) external social trends, such as the influence of the masses; (4) characteristics of a competing and complementing social media; and (5) changes in the news consumption of people.

#### 3.1. Demonstrating Complementarity

We conceive complementarity of social media by observing how it assists news firms in sourcing, delivering and consuming news.

*News Sourcing:* A recent report by Oriella PR

Network (2012) states that journalists increasingly observe short messages on Twitter, information shared by groups and networks on LinkedIn, and postings on Facebook to pursue story leads in order to write, endorse and authenticate news stories. Therefore, finding free, useful, valuable and credible information quickly through social media complements news professionals (e.g., journalists, editors, news producers) in creating and writing news stories and reports. This in turn also complements the ways in which news organizations traditionally gather information, such as through (1) telephone, email or interviews (dyadic: one-one interactions); (2) printed documents and public information repositories (published: people-documents involving searching for recorded, published and stored information); and (3) discussion forums, group meetings, general public (public: many-many interactions through the exchange of information by multiple users in an open environment) (Gray and Meister, 2006; McCombs et al., 2011). Notable examples of social media complementarity in news sourcing include events, such as the death of Osama bin-Laden and the uprisings in the Middle East, which were first reported by people on social media (e.g., Twitter and Facebook) and later used by news organizations for creating news reports.

*News Delivery:* Social media complement news firms in delivering news. For example, Cable News Network (CNN) tweets news headlines to its more than four million followers on Twitter. News delivered through social media is immediate and interactive, which triggers further sub-deliveries of original news reports through instant responses (e.g., re-tweets), posting web links of original news stories on other social media applications such as Facebook and sharing it through blogs. By delivering news through social media, news firms seek to (i) attract

people to their respective news websites as well as their traditional news mediums (e.g., television channels or newspapers) (Hong, 2012), (ii) instantly disseminate news to large user networks, and (iii) promote their respective news companies by influencing news audiences through personal tweets<sup>3</sup>, blogs and Facebook posts. Such deliveries complement the traditional delivery of news (e.g., news delivered through newspapers) by pushing news speedily through mass user networks in addition to the scheduled news deliveries through traditional mediums such as newspapers, radio and television broadcasts. For instance, the Australian Broadcasting Corporation (ABC) tweet snippets of their daily breakfast news show in advance to attract audiences to their scheduled newscasts. The traditional news delivery function of a news organization involves distributing finite news content through a medium such as a newspaper at pre-scheduled times. Such deliveries encompass (i) transferring content to a deliverable medium (e.g., printing a newspaper or uploading a live or recorded newscast for broadcasting), (ii) transporting the medium (e.g., delivering a newspaper to newsagents or households), and (iii) distributing the news (e.g., newsagents distribute newspapers to customers or a news channel distributes programs to other news channels and media outlets).

*News Consumption:* Social media complement news consumption by allowing people to upload, download and save news content for future and recurring consumption. In contrast, news consumption through traditional news mediums is static and limited (e.g., a newspaper has finite pages and content or pre-scheduled radio and television news broadcasts have limited content). News consumption through

social media is (i) *unlimited* where news can be consumed at any time and any number of times, (ii) *simultaneous* through multiple digital social networks, such as news tweets, Facebook updates, editor's blogs, and (iii) *diverse* given the choice of multi-structured length of news content (e.g., news headlines on Twitter, news abstracts on Facebook, news video clips and eye-witness accounts on YouTube). In comparison, based on the attributes of traditional news mediums and the gratifications derived by readers thereof, traditional news consumption is limited by (i) the amount of time spent on various news mediums, (ii) types of news content consumed (e.g., political news, sports news), and (iii) the relationships forged by individual consumers with news mediums (e.g., habitual reading of a newspaper in the morning). Based on our above understanding of news consumption, we observe that social media provides complementarity to traditional news firms by offering people unlimited, free and diverse types of news for consumption (e.g., breaking news, headline news) that potentially lead them to further consume news through other traditional news mediums. For example, consuming breaking news through Twitter can prompt an individual to pursue the same news on television for more in-depth analysis and visual footage of the event.

### 3.1.1. Attributes of a Complementing Social Media

We conceptualize the complementarity of social media as its innate capability to influence and benefit news organizations as well as individual news consumers. On a generic level, complementarity arises when two or more factors jointly support each other to produce greater value than if each were operating independently (Caruso, 2009). These fac-

3) Anderson Cooper, anchor of CNN's AC360 program had over two million Twitter followers (2012)



tors can be physical (and portable) devices, actions, policies and practices. Milogram and Roberts (1995) define complementarity as 'doing more of one thing increases the returns to doing more of another.' Based on our understanding, we define complementarity of social media as its functional value that increases or adds value to an existing service, process or function. We explain the attributes of a complementing social media as (i) non-excludability, (ii) non-rivalry, (iii) versatility, and (iv) positive network effects based on the notion of digital complementary assets put forth by Rosemann et al. (2011). These attributes are based, in turn, on the notion of public goods as defined in economics, the technology-acceptance model (Venkatesh et al., 2003) and network theory (Borgatti and Halgin, 2011).

*Non-Excludability:* Comparable with the Internet, social media use is free for all individuals, groups and organisations. General-purpose use of social media does not require the individual to enter into any obligatory contracts. In addition, social media does not stipulate any technical requirements or restrictive conditions for accessing and consuming content (note: social media use requires Internet access. Social media usability is mostly intuitive). This depicts the non-excludability attribute of social media whereby anybody with Internet access can use it for free without any limitations (Rosemann et al., 2011). We observe that news media practitioners (e.g., editors, reporters) employ social media for (a) accessing information provided by credible sources (e.g., people with newsworthy information) and online groups (e.g., on Facebook or LinkedIn). This is done, for example, by following Twitter feeds and postings on LinkedIn and watching citizen generated news videos on YouTube, and (b) delivering newsworthy content (e.g., through Twitter) to mass audiences for attracting them to contemporary news mediums

(e.g., news website) (Dugan, 2011; Hong, 2012). Such news content is also delivered by news practitioners (e.g., in their personal capacities like editors) for influencing mass audiences to consume news through the contemporary news mediums that belong to the news organizations they represent. For example, Anderson Cooper, anchor of AC360, CNN has 2+ million Twitter followers.

*Non-Rivalry:* Social media does not limit nor restrict any individual from using it even if mass audiences access it at any given time (subject to Internet access) (Rosemann et al., 2011). For example, a news organisation tweeting breaking news does not restrict other news organisations or individuals to tweet similar or other newsworthy content on Twitter at the same time. This non-competing attribute provides 24/7 social media and information accessibility and availability in any geographical location (subject to Internet access) and through various handheld communication devices such as smart phones and tablet computers (Weinberg and Pehlivan, 2011). Such a non-rivaling attribute of social media helps news organisations, as they do not have to worry about the scalability of social media for information processing, retrieval and storage. Such complementarity assists news organisations in speedily gathering and expressing information for informing and shaping public beliefs and opinions (McCombs et al., 2011).

*Versatility:* The popularity and success of social media (e.g., Facebook or Twitter) can be attributed to their usefulness as well as easy to use functionalities (Rosemann et al., 2011). Ease of use can be defined as the 'degree to which an innovation is perceived as being difficult to use' (Moore and Benbasat, 1991) and is measured by the intentions of a user (Choudhury and Karahanna, 2008) (note: analysing the perceived ease of social media use is beyond the scope of this paper). We observe that social media

reflects three principles of service-oriented design viz. abstraction, messaging and composability, which highlight its versatility in ease of service consumption (Rosemann et al., 2011). Abstraction denotes the fundamental design of a social media application. For example, news organisations are not required to understand how tweets (through Twitter) are uploaded and delivered. In comparison, traditional news production and delivery functions require news organisations to have specialised knowledge of business processes such as printing (e.g., for newspaper) or broadcasting (e.g., for television). Messaging signifies a precise manner of conducting interaction with users. This rationalizes information consumption by regulating the method of interaction (e.g., a tweet is limited to 140 characters). This is beneficial to news organisations because such messaging denotes consistency and compatibility of the social media application (e.g., Twitter) with existing requirements of the news organisation (e.g., a news organisation may use Twitter for short breaking news only). Composability refers to simple informal efforts in creating new properties to increase the value of newsworthy content. This is achieved by bundling the services of various social media applications. For example, news organisations can offer better coverage of issues by integrating YouTube videos on its Facebook page.

*Positive Network Effects:* Social media reflects the qualities of Toffler (1980)'s 'Prosumer' model cited by Rosemann et al. (2011) where increasing social media engagement brings greater value to the social media application (e.g., uploading videos on YouTube). Increasing use of social media potentially results in making it valuable and attractive to users. This associates the quality of a social media application positively with the number of users, reflecting positive network effects, which in turn influences

consumer demand (Aral et al., 2013). For example, popularity of YouTube videos can be ranked on the ratings awarded by users, which contribute to its quality. Such network effects are vital for news firms in (i) finding credible newsworthy information on social media, and (ii) attracting users to their respective contemporary news mediums (e.g., news website, newspaper).

### 3.2. Demonstrating Competing Potential

The dynamic characteristics of social media depict collaborative communications, content diversity, global accessibility, selectivity and control of content, portability and social connectivity (refer to <Appendix 1>). Such attributes make social media an affordable low cost interactive medium for news sourcing, delivery and consumption wherein newsworthy information is made viral (i.e., diffused instantaneously across a large user network) for mass consumption. The superiority of social media can be observed through the values it provide users, which potentially influences and attracts more users for consuming news: (i) *Functional value:* This is presumed to be the leading driver of consumer choice (Sheth et al., 1991), which takes into consideration an alternative's capacity for 'functional, utilitarian, or physical performance' (Sheth et al., 1991). The functional value of social media can be measured by its attributes such as cost effectiveness (e.g., low price), reliability (e.g., credibility) and durability (e.g., convenience, ease of use); (ii) *Social value:* Social media has certain symbolic values whereby a user may employ it primarily because his or her friends, family members, business colleagues, and other social and ethnic groups use it (Sheth et al., 1991); (iii) *Epistemic value:* This is the perceived value 'acquired from an alternative's capacity to arouse curiosity, provide novelty, and

satisfy a desire for knowledge' (Sheth et al., 1991). Social media can be addictive as it provides diverse newsworthy information on a 24/7 basis and novel way of acquiring, finding and consuming newsworthy information.

We observe that news consumption is a key area where the competing potential of social media is likely to be highly visible. User-generated-content is a core element of social media that drives high levels of consumption. As a result, social media makes newsworthy content creation, delivery and consumption available to all, which in turn drives more news consumption. Here, we posit that the competing potential of social media becomes evident when high levels of news deliveries through social media (both, as a result of user-generated-content and news firms delivering news) lead to high levels of news consumption on social media. This signifies that for social media to compete with news firms (i) it must provide complementarity to news firms in sourcing and generating news content as well as delivering news, and (ii) such complementarity must increase news consumption on social media whereby an individual news consumer, over a period of time, employs only social media for consuming news rather than traditional news mediums.

Social media never intended to perform or complete the functions of news sourcing, delivery and consumption nor compete against any specific industries and businesses. In fact, it was never dominant initially. Rather, social media have their own business and revenue models designed and based on the workings of the social networking sites (SNS) industry (Gnyawali et al., 2010). However, the ubiquitous and pervasive characteristics of social media and the congregation of mass users creating and sharing information have attracted businesses and industries (e.g., news media) to engage with it. For news organ-

izations such engagement speeds up the functions of news sourcing, delivery and consumption with minimal control mechanisms, such as publishing regulations and censorship laws. The effects of these changes are largely prevalent through news consumed through social media. We observe that the average news consumer that goes to social media seeking news updates engages more with social media first for news reports, updates and analysis. This is because social media is perceived as a fast, uncensored, free and a 24/7 medium for news that not only provides news and information but also the utility to contribute to news. In addition, social media also provides a greater sense of ownership to news consumers, especially to those that contribute to as well as share news through social media. Such ownership of news content is largely non-existent in the traditional news media.

The underpinnings of this paper reflect the dichotomous role of social media, which on the one hand benefit news organisations yet pose a dilemma on the other through their inherent competing potential. Although news firms are sceptical about the journalistic role of social media, such as not being solely engaged in traditional news broadcasts and difficulty in ascertaining the neutrality, accuracy, credibility and in-depth news reporting through user-generated-content (Neuberger and Nuernbergk, 2010), they are recognizing the strengths of social media, such as (i) reduced cost of news content and delivery (e.g., free photos and videos uploaded and shared by users), (ii) a rich source for topic ideas, facts and first-hand accounts of events, comments and responses to news stories in real time, (iii) a large network of users offering high volumes of personal perspectives, diverse opinions and exhaustive discussions, and (iv) a lucrative medium for advertising (Neuberger and Nuernbergk, 2010). Similar to the

Internet, social media offers novel and easy ways for connecting businesses with large user bases given their (i.e., social media's) 'multi-media richness, global accessibility and low costs of communications (Fuller et al., 2006). These are crucial for news organisations, as retaining and gaining audiences (circulation) and advertising revenues are important for its survival.

### 3.2.1 Attributes of a Competing Social Media

We conceptualize the competing potential of social media as its malevolent role, which influences its competing capabilities. Social media are speedy and low cost alternatives for producing and consuming newsworthy information in comparison to traditional news mediums. We define the competing potential of social media as its distinctive superior capability in (i) offering an inexpensive interactive medium for 'conveyance and convergence of information' (Dennis et al., 2008), (ii) attracting users by creating new digital market spaces, and (iii) creating mass content and making information viral (i.e., dispersing information instantaneously across mass user networks).

Drawing on Porter (2001, 2008)'s work on competitive forces shaping strategy and businesses on the Internet, we put forth three attributes to portray the competing potential of social media: (i) operational effectiveness; (ii) strategic positioning; and (iii) complementing. According to Porter (2001), sustainable competitive advantage can be achieved by operating at a low cost, offering premium services or levying a lower price. A competitive edge is achieved by operating more efficiently and effectively and by doing things differently from those of competitors. Similar to the Internet, social media did not mean to compete against any specific industry or business.

However, its ubiquitous attributes and mass user bases has impacted organisations hit by high operating costs of communications, news production and delivery, and related business processes, functions and transactions (Porter, 2001).

*Operational Effectiveness:* This implies doing things similar to but better than competitors (Porter, 2001), such as adopting and operating new and novel technologies or implementing innovative management strategies. In the context of providing news, we observe the operational effectiveness of social media through its functional capabilities of producing, distributing and collaborating information to mass audiences instantaneously in real-time. Companies that own, operate and manage social media (e.g., Twitter Inc.) function in the highly aggressive and constantly evolving social networking sites (SNS) industry (Gnyawali et al., 2010). This SNS industry is characterised by constant development of new and innovative technologies resulting in continuous creation and upgrades to products and services. In addition, there is experimentation, development and testing of new technologies, introduction of new and novel products and value co-creation through strategic alliances and partnerships (Gnyawali et al., 2010; Santos and Eisenhardt, 2009). The speed and agility of social media companies in building quality applications and services (Gnyawali et al., 2010) project out as new innovations and novel applications to traditional industries. Traditional businesses looking to innovate find it hard to imitate and implicate the pace of speedy development that social media companies undertake due to longer lifecycles of IT development and adoption (Gnyawali et al., 2010). Therefore, traditional businesses converge on social media for leveraging their capabilities and in the process end up highlighting the operational effectiveness of social media. For example, Twitter provides

news audiences the capability to respond as well as co-create news and share it instantaneously with mass audiences. In comparison, product development and services in the newspaper industry, for instance, has been rather marginal with printed newspapers offered in digital formats (i.e., news websites) as the biggest progression. The predictive negative outlook for the newspaper industry (in the United States) is evidenced by its dwindling circulation numbers and decreasing revenues (Mitchell and Rosensteel, 2012). That news organisations and individuals are increasingly producing, consuming and delivering news-worthy content on social media evidences its operational effectiveness in comparison to contemporary news mediums. Besides, advertisers have also moved their business models and are aligning with social media for achieving operational efficiency (Mitchell and Rosensteel, 2012).

*Strategic Positioning:* According to Porter (2001), for a business to gain competitive edge it must strategically position itself by doing things differently or offering different services compared to its rivals. Social media attains that by (i) bundling novel services with existing services (e.g., Skype offering video calls to its existing chat services or Facebook providing messaging utility to its existing social postings services), and (ii) offering different features (e.g., like or timeline on Facebook). By strategically positioning additional applications and services, social media is able to attract larger audiences, which in turn is leveraged for alluring advertisers and other vendors wishing to market their products and services on social media. For example, a 2012 Forbes report <sup>4)</sup> indicated that Facebook would start aggregating job postings from third parties. If true, Facebook could

become a probable competitor to other similar social media applications such as LinkedIn as well as contemporary online job recruiters in an estimated US\$4.3 billion online job-recruitment industry. Similarly, the news media could also face stiff competition from social media if social media strategically positions itself by offering or aggregating a large range of news and related information services in addition to their existing applications.

*Complementing:* Complements are vital in generating demand for a firm's services and products because they increase the value derived through the combined use of two or more products (e.g., consuming news through newspapers and news websites). This is greater than the sum of each 'product's value in isolation' (Porter, 2001). A firm providing a complementary product or service can become highly competitive to its rivals if there is a greater dependency on the complementing product or service it offers. For example, social media complements news firms in delivering news (e.g., Twitter). So, a greater dependency on Twitter for delivering news can potentially create a greater demand for employing Twitter for consuming news. In addition, other business entities and individuals also produce, share and consume news through social media (e.g., Twitter, Facebook) thereby boosting their potential as news broadcasters. Here, we posit that social media complementarity related to its attribute of non-excludability (note: refer to Section 3.1.1 ) limits free consumption to a specific level and thereafter imposes charges for using advanced features or premium services (e.g., LinkedIn). According to Anderson (2010) free products and services offered online are often strategies for attracting users and upselling some of them to a premium level. This type of pricing model widely known as 'freemium' is applicable to digital products and services (Anderson, 2010).

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4) <http://www.forbes.com/sites/jjcolao/2012/11/14/the-facebook-job-board-is-here-recruiting-will-never-look-the-same/>

We observe that the cumulative merits of social media exemplify both its complementarity as well as its competing potential. Such merits constitute (i) complementing traditional news mediums (e.g., The New York Times newspaper delivering breaking news first on Twitter), (ii) disintermediation (e.g., disengaging any mediating mechanism such as scheduled times for news), (iii) replacing communication intermediaries (e.g., Twitter as a one-stop news medium), and (iv) interactivity (e.g., users produce, deliver and consume news). Our observations of the competing-complementarity of social media on news organisations suggest some degree of organizational change. For example, the Associated Press has set up a social network centre for promoting the company and its products through social media as well as for sourcing newsworthy content (e.g., story ideas, photos)<sup>5</sup>. Similarly, social media has also impacted the news consumption of people, which previously revolved around reading printed newspapers, listening to the radio and watching news broadcasts on television. We analyse the impact of competing-complementarity of social media through the theoretical lens of punctuated equilibrium.

#### IV. Punctuated Equilibrium Theory

We employ the punctuated equilibrium theory for understanding the impact of the dichotomous role of social media at the individual level of news consumption. The impact provides insights into the long-standing pattern of traditional news consumption (controlled by news firms) punctuated by social media and creating a new pattern of news

consumption that is beyond the control of news firms. Complementarity is observed when people start consuming news on social media as well as through traditional news mediums. During such periods, news organisations employing social media as a complementing platform to their existing news delivery channels expect to attract people into consuming news through their traditional news channels. However, as the new consumption pattern evolves, it enters into a revolutionary period wherein people give up consuming news through traditional news mediums and instead, use only social media. So, although news organisations continue to use social media for delivering news, they lose audiences to social media.

Inspired by Gersick (1991)'s multilevel exploration of the punctuated equilibrium paradigm for addressing revolutionary change, we explain how social media potentially impacts the news consumption of people, which in turn impacts the business models of news organisations. The punctuated equilibrium theory (PET) explains how individuals, groups, organizations and industries evolve over time in response to rapidly changing economic, social, technological and political environments (Gersick, 1991). Evolutionary biologists have challenged Darwinian evolution by postulating that new species arise abruptly through revolutionary punctuation (i.e., radical change) where environmental selection (as per Darwinian theory) determines the fate of the new species (Gould, 1989). This view differs from the Darwinian concept of incremental cumulative change (small mutations) where species exist in equilibrium (static form) for most of their life span (Gersick, 1991). By conceptualising 'change as a punctuated equilibrium: an alternation between long periods when stable infrastructures permit only incremental adaptations, and brief periods of revolutionary up-

5) <http://www.poynter.org/how-tos/digital-strategies/e-media-tidbits/100113/news-orgs-take-social-media-seriously-by-hiring-editors-to-oversee-efforts/>

heaval' (Gersick, 1991), we explain how social media is radically punctuating news consumption of individuals and this change is signalling the competitive potential of social media. Understanding change from the perspective of PET has strong implications for news organisations, such as (i) understanding when and how change transpires, and (ii) how change can be managed. PET has been applied to diverse areas and levels of analysis, such as organisational evolution (Romanelli and Tushman, 1994), group development (Gersick, 1991), and implementation of strategic information systems (Silva and Hirschheim, 2007). It has also been applied for studying effects and impacts of technology on organisational structures. For example, Newman and Robey (1992) model IS development as a series of long episodes punctuated by brief encounters, which conceptually resemble evolutionary and revolutionary periods. Street and Meister (2004) adopt the punctuated equilibrium perspective to propose a theoretical process model to highlight the relationship between internal organisational transparency, small business growth and information systems. Despite its diverse applicability PET reflects commonalities across its applicable contexts. It centres on a similar pattern of evolution: long and stable periods (equilibrium) punctuated by short periods of radical metamorphic (revolutionary) change. The interrelationship between the periods of stable and radical change is explained through the construct of a 'highly durable underlying order or deep structure' (Gersick, 1991).

#### 4.1. Deep Structure

Gersick (1991) conceptualizes deep structure as 'the set of fundamental choices a system has made of the basic parts into which its units will be organized and the basic activity patterns that will maintain

its existence' (p. 14). However, the concept of deep structure at the individual level (i.e., humans) is largely implicit where for example, the primary component of a person's 'life structure (is) the underlying pattern or design of a person's life at a given time' (Levinson, 1986). Primary components of the life structure are the person's relationships with the external world (Gersick, 1991). This study conceptualises an individuals' (news) *consumption* as a deep structure, which is impacted by social media. Consumption is defined as 'what people do when they behave as consumers' (Pepermans, 1984). A more abstract approach depicts consumption as an activity or a process that reduces or destroys the value of matter, energy or order to humans. This is explained through metaphorical links, such as (i) economic metaphor: production->use, exchange->discard or consume, (ii) eating metaphor: hunger->preparing food->chewing->digesting, (iii) buying metaphor: shopping->buying->using->discarding (Wilk, 2004). In the context of our study, we define consumption as (i) an activity (e.g., reading, watching news) involving (ii) substances for consumption (e.g., communication mediums, such as a newspaper, television, social media) (Wilk, 2004). By adapting Levinson (1986)'s work that conceptualises the life structure of an individual as deep structure, we abstract changes in news consumption by reflecting on the (a) important choices (e.g., time, needs, values) that maintain it, and (b) punctuations (radical changes) that impact it. A key punctuation is caused by a technological innovation, such as social media, which results in major variations to the existing deep structure, i.e., consumption. We argue that social media are dynamic IT applications that disrupt the existing stasis (long phases of comparative unchanged form) of news consumption. Historically, news consumption is based on news delivered by news firms at pre-scheduled intervals

and in predefined formats where such content is finite (e.g., a daily morning newspaper edition that contains mostly text, a few photos and finite pages or a daily news broadcast that is scheduled at a predefined time and has finite content and duration). News firms largely control such 'substances' (i.e., mediums and content) available for consumption thereby governing consumption. Social media on the other hand break the monopoly of news firms on consumption as well as the monotony of content by making news accessible 24/7 and widely available through digital devices (e.g., smart phones, tablet computers) where news content is largely unlimited. This makes news consumption that was once restrictive and controlled by news organisations increasingly transparent, dynamic and unrestrictive.

#### 4.2. Equilibrium Periods

Equilibrium periods are conceptualized as 'stable periods' whereby incremental adjustments to the deep structure due to perturbations in internal or external environments do not adversely affect the deep structure (Gersick, 1991). During equilibrium periods, the deep structure remains stable thereby carrying out the activities it is set to perform. However, during such periods, incremental changes to the deep structure take place in response to 'internal and external perturbations' (Gersick, 1991). Traditionally, news consumption enjoyed a fairly long period of tranquillity despite external pressures such as increased costs, media censorship and availability of news mediums and news content. However, that has not affected the linearity of news consumption, which has remained intact. For example, a traditional news consumer has to tune into a specific news channel on his/her television set at a pre-determined time to watch news. Interestingly, the level of technology

is also a strong factor that maintains the deep structure. For example, broadcasting technology does not provide interactive communications between television viewers thereby restricting news consumption to simply watching a news report. Therefore, the average news consumer seeks other media's, such as social media to satiate their news requirements as well as interact with news and other news consumers. In such periods of equilibrium one can evidence the complementarity of social media whereby a news consumer not only consumes news through the traditional news mediums but also relies on social media for consuming more news. This apparently keeps the deep structure intact (i.e., news consumption).

#### 4.3. Revolutionary Periods

Revolutionary periods are relatively short-lived periods of "discontinuous change" (Tushman and Romanelli, 1985) wherein the 'deep structure' of a system is dismantled. This can leave the system in complete disarray until such periods end and a new 'deep structure' is formed (Gersick, 1991). For example, in the late 1990's, Internet as a technological innovation was a major disruption to the stable functions (e.g., news delivery) of news firms. News consumption on the Internet (through static websites) gave people more control over time for reading news as well as greater choice of news content (Althaus and Tewksbury, 2000). Such periods can be referred as revolutionary if (i) news firms move their core product (news) quickly to the Internet, and (ii) people switch their traditional consumption habits and instead, rely only on the Internet as a new news medium. We argue that social media shows this potential of completely dismantling traditional news consumption including the consumption of news

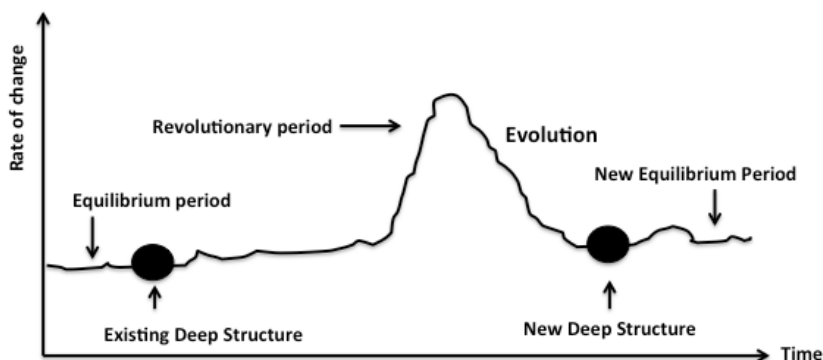


through news websites. This is because the concept of news consumption has dramatically shifted from merely tuning into a scheduled news program or a news website to a completely new configuration where consumption (on social media) is intuitive, interactive, collaborative, unlimited and free. Such consumption operates on a new set of rules such as users selecting and consuming news at their own pace and time and through their choice of electronic devices. Traditional consumption comprise of reading newspapers or listening to the news on radio or watching (hearing and viewing) news on television. With social media, consumption includes not only reading and watching, but also browsing/surfing news, posting, commenting or tweeting news and following organizations and other people on social media for news. Commitment to the crucial choices that one makes through changes to existing or traditional consumption sets the basis of a new deep structure. In such scenarios, news consumption is radically different from the one that existed in the past. We argue that the competing potential of social media is visible through such revolutionary periods where radical changes in news consumption de-

termine social media's perceived importance and superiority over contemporary news mediums. The current environment of news influenced and impacted by social media can be categorized as revolutionary given the strong impact on news sourcing, delivery and consumption. However, the outcomes of revolutionary periods are not easily predictable, as they can cause either organizational failure or transformation (Gersick, 1991) based on whether the deep structure is entirely dismantled or completely reconfigured. Therefore, the competing-complementarity of social media may not be the cause and end of a revolutionary period in the life cycle of news firms. A thematic representation of punctuated equilibrium for understanding the impact of social media on news organisations is illustrated in <Figure 1>.

## V. Evidencing Competing-Complementarity

We gather primary evidence of competing - complementarity of social media by gauging and interpreting news consumption pattern of users6) (Faraj



<Figure 1> Thematic Depiction of Punctuated Equilibrium. Based on Studies by Gersick (1991), Romanelli and Tushman (1994), and Silva and Hirschheim (2007)

et al., 2011). We propose that (i) consuming news on social media also leads to consuming news through contemporary news mediums (social media complementarity), and (ii) an increase in news consumption levels on social media signals the abandoning of contemporary news mediums (social media competing). Plausible scenarios are: (1) individuals reading news tweets or watching YouTube videos and then watching television for more information or surfing news websites for in-depth reportage (complementarity); and (2) individuals satiating their news requirements only on social media, such as browsing or following tweets, reading Facebook posts and watching YouTube videos (social media competing).

### 5.1. Methodology

We build the understanding of competing-complementarity by analysing opinionated data. As our research is exploratory in nature, we adopted the focus group method for finding jointly constructed information from individuals that give meaning to phenomena (Munday, 2006). We follow the general tradition of interpretive enquiry and convenience sampling (Pentina and Tarafdar, 2014) to understand the phenomenon and not its generalization to any target population or business entities. We collected data at two different points in time. The data collected was information relating to the news-seeking activities of individuals on social media and contemporary news mediums (e.g., television). We partially used the grounded theory method, as the goal of the paper

is to provide a rich and exploratory account of the competing-complementarity phenomenon. We accomplished this through initial observations, academic literature on the evolution of news media, archival materials (e.g., newsroom reports compiled by Oriella PR Network) and consumer reports (e.g., news consumption trends in the United States by the Pew Research Centre). The study was not driven by existing theories in accordance with principles set by the grounded theory method for managing preconceptions (Birks et al., 2013). In such an exploratory study, as the main constructs - competing and complementing media attributes and their relationship with news consumption would have been difficult to access in a quantitative manner, we employed the focus group discussion method as a qualitative way for examining the role of social media. This provided a purposeful sampling strategy in line with the study objectives. The focus group discussions and analysis were done in a recursive process where data collection and analysis activities were conducted almost at the same point in time until saturation was reached. In conceptualizing the competing-complementarity phenomenon, the collected data is only supportive and collaborative in nature but represents a snap shot of the competing-complementarity phenomenon.

We used common knowledge reasoning to analyse information that individuals normally have but may not adequately state in a conversation. This is because such communication is usually based on shared generic knowledge of objects in the context of their environments, events or situations (Cambria et al., 2010). We analysed opinions expressed by two focus groups related to their news consumption activities. The focus group comprised of nine individuals (seven higher degree research students and two staff of a large academic institution). A structured approach

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6) Based on the voluminous mass user bases of social media it is assumed that users are already actively using it. Therefore this study does not focus on the antecedents of social media use or user motivations that lean towards intention to use social media

was adopted by introducing pre-determined questions. (note: while efforts were made by the facilitator to extract information based on the generic news consumption experiences of respondents, some opinions were influenced by two big newsworthy events that occurred during the time: (a) the death of Margaret Thatcher (April 8, 2013); and (b) the Boston marathon bombings (April 15, 2013)). Refer to <Appendix B> for a sample of the focus group discussion questions. In conceptualizing the competing-complementarity phenomenon the data is supportive and collaborative in nature and represents the phenomenon.

## 5.2. Data and Analysis

**Sample:** Opinions expressed by participants in a pilot focus group discussion.

**Analysis:**

### 5.2.1. Complementarity

1. *"I found that Margaret Thatcher died when a friend posted it on Facebook." "Later I checked the news on T.V"*

Facebook offers news leads on major news events. People tend to follow news leads and continue their news consumption through traditional news mediums for more information and in-depth analysis.

2. *"I have friends in Boston who put up a video (on Facebook) of the Boston bombings even as news channels (on television) were starting to show it"*

Through Facebook, one is able to broadcast news similar to traditional news broadcasters. Frequent Facebook users are able to get news similar to news subscribers scheduling their news consumption

habits. News firms can also source such videos through Facebook and use them in their newscasts. People read news posted on Facebook while also watching television broadcasts and pursuing other news media.

3. *"I get news leads from Twitter and Facebook." "If only headlines on Twitter, then I go to traditional news channels." "I typically do both - follow news leads on Twitter including tweets by news companies as well as traditional news media including news websites."*

People use Facebook and Twitter as well as traditional mediums for news. If Twitter is not able to provide detailed news, then people tend to use traditional news channels. Facebook and Twitter provide news coverage and enable news providers and users to create and deliver news unconditionally.

### 5.2.2. Competing

1. *"I first found out (the news) when a friend posted it on Facebook"*

The news was first read (consumed) through Facebook. The news was first posted (i.e., created and delivered) on Facebook for mass consumption. With around a billion users, Facebook makes news viral in a short span of time. Traditional news mediums do not have such capabilities.

2. *"Friends put up a video even as news channels were starting to show it"*

Individuals use Facebook to broadcast news rather than send the video to an established news channel. The specific video posted on Facebook and related to a newsworthy event was able to satiate the news requirement of the user. Frequent users of Facebook are able to access and consume newsworthy information quicker than traditional news mediums. Facebook allows users to contribute to news events

while also allowing modality of information.

3. *"I prefer social media for news because traditional media and even news websites tend to be a bit periodic. I won't wait for the next day to hear what the (news) update is." "I may never go to traditional media as I get the news I want from social media." "I get things on LinkedIn that I have never heard of such as information on (new) book releases as much as I would like to hear it as news on radio or television."*

Social media offer greater frequency of news timeliness. Besides, it also offers variety of news largely created by users that have neither journalistic experience nor affiliation to news firms. Therefore, social media does not have any generic pattern of offering similar news to all. This is more appealing to people that wish to consume different kinds and types of news at their own flexible pace and time, which, for example, a newspaper offering standardized news or a television channel offering scheduled news programs cannot provide. People may not visit traditional news mediums if social media is able to satiate their news requirements. Preliminary findings from our focus group discussions suggest that the rise of social media began through the complementarity it offers. As more people engage with social media, it builds social medias' competing potential. In addition, the degree of intensity of either role (complementarity or competing) fluctuates with the level of engagement. For example, a major news event can influence more people to read newspapers or watch an event unfolding on television during the period of its occurrence.

## VI. Discussion, Implications and Limitations

Social media has ushered a 'new era of mass partic-

ipation' (Regner et al., 2010), which has challenged the monopolistic control of news organizations over news content creation, its delivery and consumption. As a test example, consider the opinion expressed by Rob Johnson, campaign manager for Governor Rick Perry in the 2012 U.S. presidential elections, *"We no longer click refresh on websites or wait for the paper boy to throw the news on our porch. We go to Twitter and learn the facts before others read it"* (Youngman, 2012)<sup>7</sup>). Analysis of this opinion reveal that Twitter as a medium for news and information is used in conjunction with other news mediums for consuming news. It is available to all including news firms. For example, news providers (e.g., CNN) use Twitter for delivering news in addition to their contemporary delivery mediums (e.g., television broadcasts). This depicts complementarity. However, Twitter is also recognized as a preferred medium for news. It is operationally more effective, as it can potentially provide news quicker than other news mediums (e.g., newspapers, websites of newspapers). This highlights the competing nature of Twitter.

Social media has also prompted news firms to adapt as well as change their ways of sourcing and delivering news. In addition, they have significantly altered the way news is consumed. On the one hand they offer complementarity to news firms in sourcing and delivering news, while on the other, their ubiquitous and dynamic attributes potentially compete with the same news firms that seek complementarity. For example, delivering news tweets (through Twitter) complements the news delivery of Cable News Network (CNN) as a news provider whereby value to CNN is derived by delivering news speedily

7) <http://www.reuters.com/article/2012/11/07/usa-campaign-social-idUSL1E8M755K20121107>

to mass users at a low cost. However, in doing so, consumers are attracted to social media <sup>8)</sup> because they rely on content, convenience and usefulness to match costs with the perceived value of social media for news consumption (Althaus and Tewksbury, 2000; Fidler, 1997; Olmstead et al., 2011). Voluminous news creation and deliveries through social media increase its communicative appeal as a potential news medium (Kwak et al., 2010), thereby making it attractive to both, individuals and advertisers.

Through the theoretical lens of punctuated equilibrium, we described how social media has impacted news consumption (conceptualised as a deep structure) of individuals thereby evidencing its complementarity as well as competing nature. Through radical changes to news consumption, we infer that social media competes for the same users and revenue streams such as advertising and subscriptions (Dutta-Bergman, 2004; Kayany and Yelsma, 2000) similar to traditional news companies. Therefore, while the complementarity of social media benefit news firms, its competing potential poses a serious dilemma. This is highlighted by the fact that any person can create, share and consume news through social media irrespective of the time or the geographical proximity to events, issues and people featured in or connected to the functions of news production. News organisations are also becoming increasingly aware of the complementarity of social media impacting their monopolistic control over news production and delivery functions as well as revenue models. While the news industry debates the issue of content ownership on social media, there is growing concern over sharing of financial returns

(e.g., advertising revenues) accrued through social media with other intermediaries such as software developers, device makers, news aggregators and advertising syndicates (Rosensteil and Mitchell, 2012). The interactive and mass user generative attributes of social media are attractive to advertisers and other vendors such as app developers and retailers, which make social media a high revenue-generating media (Glynn et al., 2012). The dynamic capabilities of social media also provide a strong measure of their competitiveness through the (i) value and volume of news created through user-generated-content, (ii) ability to attract and engage mass users amongst a 'variety of demographic groups' (Glynn et al., 2012), and (iii) ability to generate revenues.

Social media has emerged as an important media for news given its low operating costs, instantaneous real-time broadcasting and 'collective ability to act as a leading indicator of future news coverage' (Farrell and Drezner, 2008). But, news organisations struggle in understanding how to influence users that consistently use social media (Palekar and Sedera, 2013). Competing-complementarity brings new understanding to the innovativeness of social media capabilities. It poses an elusive challenge and dilemma to traditional news organisations and calls for innovating operational capabilities (i.e., leveraging complementarity) and invoking strategic structural changes (e.g., new functions, processes and technologies) to combat its competing power. However, the reflective nature of competing-complementarity raises questions such as whether the phenomenon is uniformly applicable to all social media applications. This is because social media comprises different technological applications that offer unique utilities based on their capabilities (e.g., Facebook is different from Twitter) (Wattal et al., 2010). In understanding the generic characteristics of social media, we posit that

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8) Facebook users touch 1 billion. Source: <http://www.zeropaaid.com/news/102434/facebook-reaches-1-billion-users/>. Accessed on 16th October 2012

complementing (refer to Section 3.2.1) triggers mass demand, which in turn increases the competing potential of social media as a news provider. This brings new understanding on how competition can occur between social media and contemporary news mediums.

We explained and defined social media complementarity as the capability of social media to provide its platform to news organisations for creating and disseminating news. This complementarity enables news organisations to reach out and attract news audiences to their traditional news channels and deliver news free of costs. This conceptualisation of competing-complementarity differs from the many business and technology scenarios wherein new products or services displace incumbent products and services. For example, when MP3 as an audio coding format was launched in the market, it never complemented the CD format but instead, starting competing with it. Rather, products using those format created competition between products, producers and sellers. Providers of MP3 (both technology providers and product manufacturers) never complemented providers that offered CDs. This means CDs never used MP3 in order to accrue any benefits. In the same light, television, as a news medium never complemented newspaper companies, as newspaper companies never used television to deliver news or vice versa. Rather each medium displaced the other based on their product niche. In comparison, social media is unique in such that Facebook, Twitter, LinkedIn etc. offer their medium to everybody. Complementarity is observed when a news media company uses and benefits from it. But mass use of social media builds its superiority as a news provider thus revealing its competing potential. Therefore, the competing-complementarity of social media is unique (when evidenced in relation to news

and publishing companies) because unlike MP3 products that competed with CDs making them redundant, news companies could still survive against social media if they are able to provide products or services whose product niche is greater or different to social media. In similar light, the popularity of digital and pocket cameras resulting in the decline of traditional film cameras is another example of product competition brought on by new technologies. In the same light, television, as a news medium never complemented the newspaper, i.e. a newspaper company never used a broadcasting company to deliver news or vice versa. Rather they displaced each another based on the niche of their product. This displacement has been evidenced through the time, money spent and activities replaced by people to accommodate television viewing, reading newspapers or surfing news websites. In comparison, social media is unique in such that Facebook, Twitter, LinkedIn, etc. offer their medium to all. Complementarity is observed when one uses it or benefits from using it. But when using it for a specific purpose builds the potential of social media as a superior source for that purpose or product (e.g., news in our study context), then that reveals the competing potential.

Unlike MP3 products that competed with CDs making them redundant, news companies could still survive against social media if they are able to provide products or services whose niche is greater or different to what happens on social media in relation to the same service or product. In such a scenario, the intensity of complementarity could be high depending on the level of engagement while the competing intensity could be low if the interaction of social media users for the product does not build enough traction and create critical mass (i.e., a minimum number of users) to boost its competing potential for the product or service. Another contextual example for

how competing-complementarity impacts a specific business is real estate. If social media begins offering real estate services (buying or selling property/land) or if people using social media start directly communicating with each other on social media for buying and selling property, then the competing potential of social media for real estate would increase compared to the real estate agencies that use social media (complementarity) to promote their services.

Thus, this study revealed the unique phenomenon of competing-complementarity as the temporal role of social media, characterization of social technologies and practicality of new social information systems adopted by organisations. Thus, the theoretical underpinnings of our study have strong practical implications on business strategies, optimization of resources and operational tactics and plans of news organisations and other business entities.

Punctuated equilibrium is used as a theoretical lens for understanding the impact of competing-complementarity at the individual level (news consumption) and how the dichotomous role of social media (i.e., competing-complementarity) punctuates the long-standing pattern of traditional news consumption (controlled by news firms) and creates a new pattern of news consumption, which is beyond the control of news firms. In the equilibrium period, we observe people consuming news through both, social media and traditional news mediums. However, as mass participation, news creation and delivery increases on social media, news consumption undergoes a radical change and enters a revolutionary period in which people start abandoning traditional news mediums and consume news largely on social media. This is where the competing role of social media becomes apparent with news organisations realising that the benefits they perceived by engaging with social media (the complementarity of social media)

are not yielding positive outcomes. Thus, we employed punctuated equilibrium in a novel way to understand the impact of competing-complementarity. This provided insight into how social media affects news organizations, which may not be evident at the onset when they start engaging with social media to accrue benefits through the complementarity it offers.

Based on our current research, we propose a future agenda for researching competing-complementarity of social media that involves investigating (i) homogeneity of the phenomenon across different types of social media applications, (ii) evolutionary nature of the phenomenon such as for example, how do control variables such as time and news content influence and affect the phenomenon and whether the phenomenon is recurrent or unique in nature, and (iii) impacts of the phenomenon on different types of businesses. For example, while this paper explained how news organisations use social media for sourcing newsworthy information and delivering news, more research is required in understanding how firms respond to a competing social media. This paper also showed some weaknesses of news organisations alongside the benefits they enjoy by engaging with social media. This raises further questions, such as (i) would social media wipe out traditional businesses in the publishing and media industries?, (ii) which specific social media application is more likely to weaken the role and value of traditional firms?, and (iii) how would social media radically alter user interactions with traditional products (e.g., news, books) given that such new technologies offer 'affordances of active participation' (Wattal et al., 2010). This paper does not focus on the underlying reasons why users select or prefer one medium to the other. Rather, the study is scoped to only highlight and evidence the unique phenomenon of competing-complementarity of social media.

## 6.1. Implications

Our conceptualization of competing-complementarity is built on independent observations, past studies on news media and discussions with individuals that use social media and traditional mediums (e.g., newspapers) for consuming news. To the best of our knowledge, this is perhaps one of the first studies, which investigates the dichotomous role of a ubiquitous technology such as social media. Therefore, given the newness of the subject, this study is scoped to explain what the phenomenon is and how it evolves. Our concept of competing-complementarity presents an excellent opportunity to researchers in several domains such as information systems, computer mediated communications, journalism and media for better understanding the competencies of new and emergent technologies such as social media and their repercussions on individuals and businesses. The reasons or antecedents to why competing - complementarity happens are beyond the scope of this particular paper. This is because there could be several logical reasons that may reflect media choices, social influences and communication contexts. These along with others causes can potentially trigger the competing-complementarity roles displayed by social media. They demand more in-depth and independent investigations, empirical validation and analyses, which future studies can undertake.

Past and emerging studies on social media have focused on benefits, issues and conceptualizations and offer little insights on how social media compete with the same firms that they complement. Past studies on the complementarity of news consumption across traditional (e.g., newspaper) and new media (e.g., Internet based websites) (Dutta-Bergman, 2004; Lee and Leung, 2008) dwell on cognitive user perspectives but fall short of theorizing their causality

and repercussions on processes or functions at the firm level and outcomes leading to organizational evolution and sustainability. Our study takes a deeper perspective by identifying the impact of competing-complementarity of social media on consumers as well as functions at the organisational level. The punctuated equilibrium lens offers a better theoretical understanding of the mechanism of change occurring in the consumption of news by individuals. The concept of a 'deep structure' provides valuable insights on the stability of a system during periods of equilibrium and highlights its strategic position contrasted against a firms' environment and its critical role in radical transformation due to technological innovations. Therefore, understanding functional transformations at the organizational level as well as on the individual level offer better insights on conditions that can induce fundamental and radical outcomes in response to external stimuli (i.e., technological innovations like social media) leading to either success or failure. Our analysis of competing-complementarity of social media affecting the functions of news organisations reveals that short periods of discontinuous and radical change can profoundly alter prime functions of an organisation. Using the theoretical lens of punctuated equilibrium, we conceptualised news consumption as a deep structure. This allowed us to recognize customer environments through which we depicted the impact of competing-complementarity of social media. Our analysis suggests that engaging with social media necessitates profound modifications to a news firms' strategy, structure and control mechanisms. Given the dynamic nature of social media, news organisations need to be careful in selecting which social media application to engage with. Higher the competing potential of a social media application, greater is the chance of a news organisation undergoing radical change based on its ability to manage



change. And what can be true for news firms could apply to other businesses and industries.

## 6.2. Contributions

This study explained a subtle yet complex phenomenon related to social media, which to the best of our knowledge is under-researched in the Information Systems, communications and media studies domains. This study employed a qualitative research design for finding new insights and evidences on a unique and complex new phenomenon that appears deceptively simple and relatively misunderstood. We followed the general tradition of interpretive enquiry and convenience sampling to understand the phenomenon and not generalize it to any target population. Due to the newness of the topic, we built our understanding from the communication, media and journalism literature as well as Information Systems. While past studies in the mentioned domains have researched communication and news media, neither has looked at or adequately studied their dichotomous roles, which this paper has presented (related to social media). Contrary to popular belief of social media's beneficial role, this study demonstrated its disruptive and competitive potential. Media related studies in the communication and journalism domain have explained the dominance of a news medium over another by looking at how a new medium displaces the news consumer in terms of time and money spend on one medium compared to the other and replacing other social activities with news-seeking activities on a news medium. In all studies, none of the news mediums (e.g., TV or newspaper) were investigated for any complementarity roles. This study demonstrates the uniqueness of social media by highlighting its dichotomous role of competing as well as provid-

ing complementarity.

Our observations and findings suggest that social media never set out to compete with any business organizations nor sought to complete the functions of news delivery, news sourcing and news consumption. However, complementarity increases the level of engagement from business entities while the attribute of creating and sharing content attracts individuals for consuming news. Thus, social forces and influences that come into play as a result of complementarity build the competing potential of social media. This study provides news organizations in particular and other businesses in general, a more constructive and detailed understanding of how competition with social media evolves, which can be detrimental to organizations that seek to engage with social media because of its complementarity.

This exploratory study brings new understanding of social media by: (i) analysing the competing-complementarity of social media by comprehending the interactions between two information and communication systems (i.e., social media and news mediums). Media scholars make a key change in considering news media as a traditional 'persuasive system' (Ball-Rokeach and Jung, 2009) to regarding it as an *information system*. Doing so opens up prospects of directing attention towards studying (a) relationships between producers and users of the system, (b) investigating mediums for their potential information value, (c) audiences as 'active processors' and users of information than mere 'passive receptors' (Ball-Rokeach and Jung, 2009) within a communicative environment, (d) possibilities of both intentional and unintended media effects, (e) dependency relationships (Ball -Rokeach and Jung, 2009) (f) disruptive innovation of digital technologies (Palekar et al., 2013); (ii) the impact of competing - complementarity at the consumer as well as the functional

level in firms using the theoretical lens of punctuated equilibrium and examining the transformation of the firm; and (iii) applying information systems domain knowledge for probing the impacts of technological innovations on news firms. Our research found that in the communications discipline, studies focusing on the impacts and effects of one medium on another like radio (Lazarsfeld, 1940), television (Belson, 1961), Internet (Lee and Leung, 2008) have not focused on the intervention, impact and effects of technological innovations on news production and delivery functions. Therefore, analysing the competing-complementarity of social media and its impacts at the firm level (from an information systems perspective) brings new understanding to the evolutionary nature of organizational change and progression. Such transformations have theoretical and practical implications on the future of an organization such as growth strategies and enhancing operational power through resource optimization. Knowledge of these elements can lead to better interpretation of technological innovations and their impacts on business processes and functions leading to better management of organizational change.

### 6.3. Limitations

This paper presented a depiction and understanding of (i) the potential and uniqueness of social media evidenced by its competing-complementarity role, and (ii) the impact of competing-complementarity on the functions of news sourcing, delivery and consumption. However, this conceptualization and exploratory analysis is limited in its generalizability of news mediums and the applicability of logical conclusions of transformations to all communication mediums. The aim of this paper is to explain a unique phenomenon of social media, which is its dichotomous role

– one that provides affordances and benefits organisations and the other its superiority or potential to become a strong medium for communication and news dissemination. Thus, the aim is not to generalize the phenomenon to other settings. However, future research could use the theoretical underpinning of competing-complementarity for explaining new organisational mechanisms and impacts of future social technologies. For example, competing-complementarity can provide insights into how digital business strategies are formed as well as destabilized by external environmental pressures. This paper provides strong explanations of the temporal nature of social media, which is largely understudied in the information systems, and media and communication domains. Such explanations are based on the characteristics of social media and account for both, its competing and complementing role, the increasing influence of people creating and sharing news on social media and the limitations imposed by the traditional business models of news organisations, which trigger news organisations to employ social media.

First, we limit our understanding of social media as media only in terms of its communicative nature and a resource for information and news. Social media is not identifiable as a news provider similar to news organizations through established parameters where information that begets news values is attributable as news. Second, we do not predict nor assert that all news mediums (e.g., print, broadcast, radio) could develop the same patterns of transformation. Third, this study evidenced a snapshot of the competing-complementarity phenomenon. Generalizations based on our findings are limited by our data, approach and the news mediums investigated. There may be a potential limiting issue in selecting Facebook or Twitter (or the influence of major events) to evidence competing-complementarity. Therefore, ex-

panding the study to several other social media applications would allow for a more systemic understanding and analysis of competing-complementarity. Opinions and focus groups can be suggestive. The presented data is limited by the small size and homogeneity of the focus group. Although the group size cannot represent the mass user base of social media, the data provided by the focus group (through group discussions) represents the competing-complementarity phenomenon. As the data is only supportive and collaborative in nature, more empirical studies are required to validate our findings through larger data sets. The temporal setting and exploratory study of competing-complementarity presented in this paper is a snapshot of the evolving phenomenon. Future

longitudinal studies can predict or evidence a series of equilibrium and revolutionary periods that capture the fluctuating intensities of competing-complementarity. The reasons or antecedents to why competing - complementarity happens are beyond the scope of this particular paper. This is because there could be several logical reasons that may reflect media choices, social influences and communication contexts. These along with others causes could potentially trigger the competing-complementarity role displayed by social media. They demand independent investigations, empirical validation and analyses, which future studies can undertake for building deeper understanding of the competing-complementarity of social media.

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## &lt;Appendix A&gt; Characteristics of Social Media

Characteristics	Description	Literature
Collaborative Communications	One-many, many-many communications. Allows greater user participation and information sharing	Glynn, et al., 2012; Hong, 2012; Hopkins, 2012; Kaplan and Haenlein, 2010; Kietzmann, et al., 2011; Kwak, et al., 2010; Metzger, 2009; Thelwall, 2008; Vuori, 2012
Diversity of Content	Convergence of multimodal content (textual, aural, visual information). Quantitative, voluminous and fast moving (i.e., frequently changing)	Kaplan and Haenlein, 2010; Rosemann, et al., 2011; Sundar, 2009; Thelwall, 2008
Global Accessibility	Free. Publicly available 24/7. No territorial limitations. Content delivery is instantaneous	Glynn, et al., 2012; Kaplan and Haenlein, 2010; Vuori, 2012
Selectivity and Control	User generated content. Users control and can discretely select and utilize content (e.g., download, upload, save, share, recreate)	Kaplan and Haenlein, 2010; Kietzmann, et al., 2011; Thelwall, 2008; Yuan, 2011
Customization of User Experiences	Analytics on user activity (e.g., likes on Facebook) and other experiences can be utilized for marketing strategies and delivering personalized content to users	Glynn, et al., 2012; Kietzmann, et al., 2011; Vuori, 2012; Weinberg and Pehlivan, 2011
Portability	Content previously tied to designated instruments (e.g., television, radio, newspaper, cable) and fixed locations can now be accessed, consumed and distributed in diverse physical and social spaces through devices such as mobiles, tablets, ultra slim laptops	Mitchell, et al., 2012; Weinberg and Pehlivan, 2011
Social connectivity	Ubiquitous and direct social interaction (e.g., re-tweets, likes, comments) and engagement with and between users and groups (e.g., family, organization)	Alarifi and Sedera, 2013; Glynn, et al., 2012; Hong, 2012; Hopkins, 2012; Park, Kee, and Valenzuela, 2009; Rosemann, et al., 2011

## &lt;Appendix B&gt; Discussion Questions for Focus Groups

Number	Questions
1	Which social media do you employ for news?
2	Describe your news consumption through social media
3	Describe your news consumption through a combination of contemporary news mediums (e.g., newspaper, T.V., news website) and social media
4	Describe the circumstances and why you may continue your news consumption through traditional news mediums after getting news leads or following links from social media
5	Describe your experiences if you feel that you are detaching yourself from contemporary news mediums because social media is able to satiate your news requirements
6	How much do you depend on social media for news? Why? Or why not?
7	What are the advantages and benefits of social media for news consumption?
8	How do you participate on social media? (In the context of creating, delivering, sharing, and consuming newsworthy information)



◆ About the Authors ◆

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**Shailesh Palekar**

Shailesh Palekar is a doctoral researcher in the Information Systems School at the Queensland University of Technology (QUT), Brisbane, Australia. His research interests include technological, commercial and social impacts of digital technologies and Web 2.0 applications and the role of IT in disruptive innovation and enterprise risks. His research papers have been published in the proceedings of the International Conference of Information Systems (ICIS) 2014 and 2013, the Australasian Conference on Information Systems (ACIS) 2013 and the Pacific Asia Conference on Information Systems (PACIS) 2015, 2014, and 2012. He received his master of journalism degree from the faculty of social sciences from the University of Hong Kong in 2007. He has over 15 years of industry experience in the news media and international business.

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**Darshana Sedera**

Darshana Sedera is an Associate Professor at the Information Systems School at the Queensland University of Technology in Brisbane, Australia. He received his PhD from Queensland University of Technology in 2006 and has over 100 peer-reviewed publications. Highlights of his publications include the Journal of the AIS (2008), Journal of Strategic Information Systems (2010), the Information & Management (2013; 2015), Communications of the AIS (2013; 2014; 2015), and The Australasian Journal of IT (2014; 2015). Dr. Sedera is the Chief Investigator of the Australian Research Council grant on “Enterprise Systems Use” with Ephraim McLean of the Georgia State University, USA and leads the SAP University Academy at the Queensland University of Technology.

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