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A Theoretical Approach to Conceptualize Information Quality in Social Media

Research in Progress

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Abstract

While organizations strive to leverage the vast information generated daily from social media platforms, and decision makers are keen to identify and exploit its value, the quality of this information remains uncertain. Past research on information quality criteria and evaluation issues in social media is largely disparate, incomparable and lacking any common theoretical basis. In attention to this gap, this study adapts existing guidelines and exemplars of construct conceptualization in information systems research, to deductively define information quality and related criteria in the social media context. Building on a notion of information derived from semiotic theory, this paper suggests a general conceptualization of information quality in the social media context that can be used in future research to develop more context specific conceptual models.

Keywords

Social Media, Information Quality, Semiotic, Conceptual Model

INTRODUCTION

Organizations are increasingly making decisions on the basis of information from social media (SM). Many companies have found that social media can offer valuable and rich new insights at lower cost and faster than conventional methods (Chui et al. 2012). Organizations are striving to integrate information from various SM into their daily business practices in e.g. business process development, service development and marketing strategy (Mayeh et al. 2012). However the quality of information generated by users in social media is uncertain. A better appreciation of what constitutes information quality in social media will enable better informed decisions when employing that information.

This study adopts a definition of social media that has been widely adopted in research - "A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, that allow the creation and exchange of user-generated content" (Kaplan and Haenlein 2012) This definition emphasizes two aspects of SM; the content which is provided by users, and the technology that supports the creation and exchange of the content.

User generated content in SM comes in different forms, and from different kinds of sources such as blogs, micro-blogs, social networking sites, wikis, social bookmarking, social news, reviews, and multimedia sharing (Bindra et al. 2012). The extent to which organizations can derive value from the content generated in social media (or from any other information source) is contingent on the quality and relevance of that information to the organization as the information user, or to information users within organizations.

Despite the potential of information provided by social media to support competitive intelligence activities in organizations, related research are scarce (Vuori and Väisänen 2011). Efforts to address information quality (IQ) concerns in social media (SM), thus far have mostly entailed the development of automated, advanced retrieval methods for deriving pre-specified information from SM (Agarwal 2009). However, understanding relevant IQ attributes, and effective means of their assessment, is yet limited in SM studies. While some such as (Chai et al. 2009) have studied different IQ criteria and evaluation issues in SM, review of the literature indicates that the scope, perspectives and approaches of these works is disparate, largely incomparable and lacking any common theoretical basis (Chen and Tseng 2011). Since a necessary prerequisite to developing any evaluation model and measurement criteria, is careful conceptualization of the focal construct (MacKenzie et al. 2011; Nunnally 1994) thus it is the aim of this paper to set out the conceptual domain of IQ in SM, as a precursor to the development of an evaluation model or further theory buildings efforts.

This study also argues that current IQ models in the context of information systems (IS) studies may not be applicable in social media context without justification, given the distinctive characteristics of SM, including: wide accessibility, permanence, global audience, recentness and ease of use (Agarwal and Yiliyasi 2010; Baeza-Yates and Rello 2011). Social media has extended knowledge creation beyond organizational boundaries. Thus, in contrast to traditional information systems, managers have little control or influence over the quality of SM information obtained (Kane and Ransbotham 2012). Information systems in organizations purport to present static reality such as forms, reports and graphs and they are assumed to mirror business process. In this context accuracy and completeness are important criteria for information quality. On the other hand, in the social media context there is no static reality and change in the environment is unpredictable. Social media create a series of images which are changing constantly, and do not aim to represent an objective reality to satisfy specific needs of decision makers in organizations. As a result, quality measures such as completeness may no longer be adequate as an index of information quality in social media (McKinney Jr et al. 2010). Social media are also different from traditional forms of websites; they enable wide variety of individuals to make their thoughts, reactions and opinions easily accessible to the global community ((Dellarocas 2003). This also makes specific information problems in SM such as spam, slang, context specificity, information overload and misspelling (Agarwal and Yiliyasi 2010) which imply that the notion of IQ needs to be re-defined within the SM context.

In attention to this gap, this study aims to conceptualize IQ in SM from the organizational users' point of view (decision makers in organizations). The conceptualization approach employed in this study is adapted from Mackenzie et al. (2011) and guided by Burton-Jones and Straub (2006), Burton-Jones and Grange (2012) and is consistent with Price and Shanks (2005b) approach in defining information quality in information system using semiotic theory. According to these studies the deductive approach to conceptualization includes defining the main elements and underlying assumptions in relation to the focal construct. The initial deductive conceptualization stage in this study delineates information (consistent with Price and Shanks (2005b) and Mai (2013)) and quality as the two main elements of the focal construct, and considers SM as the study context.

The concept of quality has been scrutinized throughout history and has been defined in various forms. There is no global definition of quality which can be applied to all situations. Each definition of quality has its own strengths and weaknesses. Reeves (1994) has mentioned that the quality of any product or output should be defined with attention to the fundamental nature of that phenomenon. Transferring this idea to information "produced" via SM suggests that defining the quality of information is closely tied to the definition and characteristics of the information (Mai 2013). This highlights the importance of defining information (as the product or output of interest) prior to defining IQ.

Information is poorly defined in the IS literature, with few manuscripts on information per se reported in IS journals. IS researchers always take the notion of information for granted and fail to identify underlying assumptions about information which can influence research outcomes (McKinney Jr et al. 2010). To understand and conceptualize the notion of information in SM, it is necessary to engage with a range of literature and disciplines on information definition and conceptualization. After reviewing different views and conceptualizations of the notion of information across disciplines, consistent with McKinney Jr et al (2010) and Boell and Cecez-Kecmanovic (2011), this study suggests applying the adaption view to define information in the social media context. The basic assumptions of this view of information are discussed in more detail later in this paper.

After defining information in SM, the quality element should be investigated. Review of literature on both service and product quality reveals a diversity of views, definitions and measures of quality. This study draws from the quality classification suggested by Garvin (1984) in seeking to align an appropriate definition of quality with our previously argued conceptualization of information in social media. The results of this alignment, which is based on conformance between quality and information definitions, represent the main aspects of our conceptualization of IQ in SM from a theoretical perspective (the deductive approach). Finally a structured review on IQ in SM studies has been conducted to realize how current literature can help in better specification of the suggested framework in this study.

This study mainly contributes to research by providing a conceptual framework of IQ in SM which can be used in future research to develop IQ evaluation models or to build theories in the social media context.

CONCEPTUALIZING INFORMATION IN SOCIAL MEDIA

We reiterate the study goal, to define IQ of SM for users in an organizational context and to understand the criteria of high quality information from the user's perspective. To choose an appropriate lens to conceptualize information, this study focuses on understanding communication within the study context and investigates the concept of information in association with communication. This emphasis on communication is consistent with Beynon-Davies (2009) and Mingers and Willcocks (2014). The starting point in defining information and

communication is to understand the underpinning concepts - personal, social and material worlds - and their relationships (Mingers and Willcocks 2014). Semiotics or semiology, the science of signs and sign production, is an information view that thoroughly deals with all these three underlying concepts of communication. Semiotics can be considered truly as the basis of all communications and social actions (Mingers and Willcocks 2014).

The Semiotic school of thought focuses on the production and exchange of meaning (Mai 2013). "In this view communication is underpinned by system of meaning and signification" (Mingers and Willcocks 2014). The Semiotic School of thought views information as signs which are interpreted by human beings (Boell and Cecez-Kecmanovic 2011). Information could be intended to tell something, argue or inform about something, or to convince someone about something. In this view, information is a vehicle for communicating the intended meaning. The focus in this view is on the interpretive nature of production, organization, retrieval and use of information (Mai 2013). A Semiotic understanding of information is based on the understanding of signs as the core element of communication, which links issues of human intentions, meaning, the structure of language, forms of communication transmission, data storage and collaborative action (Beynon-Davies 2009).

Social media create a series of blurry images which are changing constantly and do not aim to represent specific, objective reality to satisfy needs of business' users. McKinney Jr et al (2010) suggests an appropriate lens to define information in such environment is adaption view. "Not only does the adaption view enable research on many more non-business/non-organizational topics, it also supports IS inquiry on emerging collective systems with unique technological arrangements such as Facebook, Wikipedia and other Web 2.0 sites" (McKinney Jr et al. 2010). Adaption view is meant to cope with an ambiguous and unpredictable environment where the nature of the problem cannot be specified clearly, and change is rapid and unpredictable (McKinney Jr et al. 2010). Information in this view is defined based on the users' perception of received information. The adaption view does not consider information as the organization's ubiquitous commodity with a common interpretation (Carr 2003). Instead, information is created by users' cognitive ability, knowledge and experience (Tuomi 1999) which is "the exclusive source of change for every system" (McKinney Jr et al. 2010).

Adaption view is based on the paradigm shift that there is no objective reality independent of the perception - information in this view is defined as "any perceived difference that makes a difference to a subject" (Hjørland 2007; McKinney Jr et al. 2010). Subjects in this view are not just individuals but they are referred to as systems such as a machine, a mind or a firm. An example in a business context might be a firm perceiving declining sales; if this perception makes a difference to the firm then there is information. If a decline in sales does not result in any change in the system, it is not considered as information. This definition implies that perception of the information does not happen only in the individual level, but through interaction of the individual and the context as a system (McKinney Jr et al. 2010)

This study defines communication in SM based on cyber semiotic theory by Brier (2005), in the adaption view. This is also consistent with how Mingers and Willcocks (2014) defined technologically based-communicative interaction. Brier (2005) argues that reality (message reference) is self-cognition that the individual creates and communicates to others by signs. The nature of response to the external sign by the partner of communication is determined by readiness of the nervous system. The transformation of sign to information is carried out largely unconsciously by individual cognition and pre-structured meanings. Breir (2005) then describes interpersonal communication as "a dance of mutual structured coupling". This means that a sign should be perceived by the partner of communication - within their environment (pragmatic), signification system (semantic) and material world (syntax- Physics) (Mingers and Willcocks 2014). At this point, it is necessary to define technology or media as "the material of the world that affords the mediation of some form of content" (O'Neill 2008).

As was mentioned earlier, we define information in social media in association with communication in the social media context, in which self-cognition (user generated content) is created and communicated by individuals using signs of language and media. The contents (signs) then received by the partner of the communication (in this study - business users) using media provided affordances. The sign to be perceived as information for the user, should: (i) conform to physical rules of media; (ii) belong to the signs system (known by users) and conform to syntactic rules of language (iii) be interpretable with some meaning in the world by users (semantic rules), and finally (iv) be actionable on the derived information from the signs (pragmatic rules) . The last requirement implies that, to result in change, the sign must be understood by actors in certain social and organizational contexts. Within this definition, signs received from SM can be understood as information when they are perceived as meaningful and relevant to a particular work and decision making process, involving interests and goals (inter-subjective view). This definition of information is also consistent with Boell and Cecez-Kecmanovic (2011) definition based on the Stamper et al (2000) framework. Figure 1 below shows how communication can happen between two partners, using social media as a communication tool.

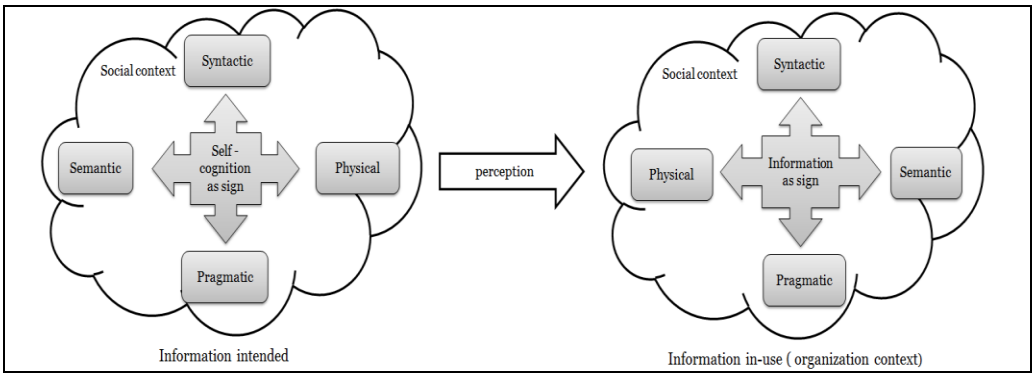

Figure 1. Communication model in social media adopted from Boell and Cecez-Kecmanovic (2011)

Figure 1 shows that self-cognition of one partner's communication is encrypted in signs which could be perceived by the other partner of the communication, in the same or a different social context and with the same or different pragmatic, semantic and syntax understandings. For a sign to be considered as information in social media context it should be understandable by other side of communication in all four mentioned aspects. Following sections provides more details about each aspect in a social media context.

Information attributes in social media

After defining general concepts and assumptions of communication and information in social media, in this section we define information attributes in social media based on the above assumptions. Prior to defining attributes and dimension of information, we need to define sign and semiotics related concepts in SM. Basically, Morris (1938) defines sign as a physical manifestation (representation) with implied propositional content (the referent) that has an effect on some agent (the interpretation, resulting in some behaviour, either action or understanding by the agent. In the information systems field, as Falkenberg et al. (1998) explained; sign and its physical representation(s) are defined as signal and marks respectively. Price and Shanks (2005b) refer to the physical presentation of sign as data and meta-data in IS.

According to SM core characteristics defined by Boyd and Alison (2010), there are four kinds of content in SM: (i) user's network related information, (ii) shared content and users' contributions, (iii) users' profile information, and (iv) users' activities. This study defines signs in SM as the content which can be generated by users explicitly or by their activities implicitly. SM platforms also include a storage layer which is responsible for storing information of SM platforms and handling database loads (Pallis et al. 2011). Data which is stored in this layer should conform to database rules. As a result, the same definition of sign as datum, logics and data models, as any other kind of information system or communication system can be applied to this layer of SM applications. Based on this general definition of sign and conformance rules of information, we define information attributes in following main categories:

Physical and material: the materialist view of information, links information to organization in the physical world (Boell and Cecez-Kecmanovic 2011). The physical layer concerns the media and signs which are transmitted by communication media (Falkenberg et al. 1998). This view of information aims "to establish a measure of information in terms of purely physical quantities". In the SM context, the physical level is defined in relation to platform specifications and how a coding process matches the signals to the characteristics of the SM platform. This stream of literature on information has limited relevance to the IS discipline. This study also does not focus on the specifications and qualities of physical/material level in SM to define information quality.

Syntactic: According to Morris (1938), syntactic rules describe relations between signs including language or sign system. Information in a syntax view is objective and independent of any particular observer. Here the focus is on representation in the sign system, structure and rules. Complexity and structural richness are concepts which belong to the syntax level. The rules for generation and passing formal expressions allow measuring the complexity. Measures can be derived from logical probabilities. Boell and Cecez-Kecmanovic (2011) define syntactic attributes based on the fact that information should be presented in a way that follows syntax rules and is understandable to the recipient. Syntactic rules consider not only language rules but rules of data presentation (Boell and Cecez-Kecmanovic 2011). Conformance of data and meta-data based on the integrity rules in information systems (Price and Shanks 2005b) are other kinds of rules related to syntax level. Syntax rules in SM can be mainly categorized according to three kinds of rules; 1) rules related to storage layer of SM and logical data models 2) rules which define the relation between data fields in content management (representation) layer (Figueiredo et al. 2013) and 3) syntax rules of language.

In contrast to the syntax level, which is dependent on the features and characteristics of SM platforms, the semantic and pragmatic levels are more dependent on the users and the information use context. Thus, these dimensions should be defined clearly based on the context and users specifications.

Semantic: Semantic attributes are defined in the individual level, people who derive and interpret information and are in an interlocking relationship with social and material world (Mingers and Willcocks 2014). The semantic level concerns comprehensibility and level of detail (Boell and Cecez-Kecmanovic 2012). Comprehensive means that a message needs to be integrated into the recipient's knowledge in order to become information for them. In IQ literature, this attribute is considered as interpretable or easy to understand (Boell and Cecez-Kecmanovic 2012; Falkenberg et al. 1998).

For example a study of a recruiter's perception of social network sites (Pike et al. 2013) revealed that some information such as endorsements, even if true, is not considered as information for recruiters because basically they don't trust the usual user's network such as friends. When deriving information from SM, users may apply some implicit rules which mainly can be classified as semantic criteria. This complexity in defining information in the semantic level requires clear definition of users of information and their experience prior to defining information qualities.

Pragmatic: Pragmatic is related to effects of sign in the social context- and is concerned with data use, activity and context of use. Price and Shanks (2005b) define pragmatic quality as the degree to which stored data are suitable and worthwhile for a given use, where the given use is specified by activity, context and information consumer. Pragmatic level is dependent on the decision making context and is different for different tasks. Boell and Cecez-Kecmanovic (2011) defines the qualities of pragmatic level as novelty of information, goal relevance, and value to a recipient, time dependence and contingency. These qualities are independent from the communication tool and can be adopted in SM context as well.

Social media are used by organizations in different contexts and with different goals. They can be used in marketing and market research (Heidemann et al. 2012; Turban et al. 2011), to improve customer services (Kettles and David 2008; Turban et al. 2011), recruiting and human resource related decisions (Pike et al. 2013; Turban et al. 2011) and knowledge management, innovation management and crowd sourcing (Bonchi et al. 2011; Turban et al. 2011). In each context, the criteria of high quality information and the source of information could be very different. Pragmatic qualities of information can influence perceptions of users in semantic and syntactic levels (Price and Shanks 2005a). Accordingly, the decision making context, quality criteria even in semantic and syntax level, can be treated and prioritized differently. The importance of pragmatic criteria in defining other levels of qualities, implies defining context and pragmatic qualities prior to defining the qualities of semantic and syntax level.

In the next section qualities of information in syntax, semantic and pragmatic dimensions are discussed based on the general definition of the quality concept.

CONCEPTUALIZING INFORMATION QUALITY IN SOCIAL MEDIA

After defining information in SM and characterizing information dimensions, a classification of quality definitions from Garvin (1984) will be introduced in this section and the appropriate quality definition will be adopted to define IQ. IQ studies in IS, have mainly defined data or information as a product or organization's output. Product quality should be defined according to the characteristics of the product of interest (Reeves and Bednar 1994). Wand and Wang (1996) and Wang et al. (1995) have applied manufacturing quality definition to define data quality in data bases. The concept of quality as "fitness for use" has also been widely used in IQ literature (Wang and Strong 1996). Garvin (1984) Identified 5 definitions of the concept of quality; transcendent, product, user, manufacturing and value, based definitions. Transcendent quality means innate excellence. This definition is absolute and universally recognizable, it shows achieving high standards. This definition provides few practical guidelines (Reeves and Bednar 1994) and is not appropriate to define quality of SM information when there is no set of predefined quality standards. Product based quality is defined as the quality of ingredients and attributes possessed by the product. Manufacturing quality is also defined in relation to the supply side of the equation, meaning conformance to requirements or design specifications, reliability of engineering, and production control. These two definitions focus on material and physical aspects of products. As a result, they can be used to define quality associated with the physical view of information. User-based quality is defined as the capacity to satisfy users' demands or fitness for use, specific to customer requirements. Value-based quality is about the cost of having a certain level of quality. Both these views are of subjective aspects of quality, so they can be applied to define quality in semantic and pragmatic levels (Garvin 1984; Reeves and Bednar 1994).Table 1 represents how different quality definitions can be applied to define IQ in SM from different views.

Table 1. Mapping information dimensions in social media to quality definitions

Information views in SM	Quality definition	Definition of IQ in SM.
Syntax: is defined based on the kinds of content SM platform and includes the relation between different objects which are shared and syntax rules of language and database integrity rules.	Manufacturing –based quality	Manufacturing quality has been applied to define quality of stored information in data bases (Wand and Wang 1996; Wang and Strong 1996). Based on this definition quality in syntax view is defined as conformance to syntax rules of media representation and language.
Semantic: It depends to individuals who are using the information and their cognitive, knowledge and experience.	User-based quality	Conformance to users' cognitive and meaning system. Quality is defined by users.
Pragmatic: Relevance of the information to decisions making task and context.	Value based quality user-based quality	Quality in this view is defined as fitness of information to be used for a specific user, to do a specific task within certain context. Value of information is SM could be assessed roughly based on the efforts and costs to derive that information and how much that can contribute to organization's decision making.

The definition of IQ in SM dimensions in Table 1 reveals that IQ in SM is defined by three main dimensions which have distinctive characteristics and each of them is essential in defining IQ in SM. This means that IQ in SM is a multi-dimensional construct from conceptual perspective (MacKenzie et al. 2011). According to Jarvis et al (2003) and Mackenzie et al. (2011) when the focal construct is defined by sub-dimensions, represents a function of its sub-dimensions and a change in focal construct would not mean the change in all of sub-dimensions then the sub-dimensions are formative indicators of the second order focal construct.

As was discussed earlier in this paper, for information to possess a certain level of quality in the social media context, it should be relevant to the task and context of use, be interpretable by users and should conform to rules of syntax that are understandable for users and also should be communicated effectively to the receiver by communication media (Boell and Cecez-Kecmanovic 2011). As a result, IQ in SM can be defined by a hierarchy of dimensions which means that having an acceptable level of quality in lower level dimensions is prerequisite to having a certain level of quality in higher levels. In this hierarchical definition of IQ dimensions, the syntax view is the lower level, and the pragmatic dimension is the higher level quality dimension. In other words, IQ in SM is formed by interaction among its dimensions and their attributes (multiplicative function) and should be modelled and measured in a fashion consistent with this logic (MacKenzie et al. 2011).

Figure 2 shows the primary IQ in SM model suggested by this study. It is important to define each sub-dimension with the same care as the focal construct itself.

Syntactic dimension of IQ refers to characteristics (as property) of data bases and representation of information (as entity), which may be stable across different situations. Semantic and pragmatic dimensions refer to perceptions (as property) of users (as entities) applying information, and vary across different contexts. The theoretical definition also suggests a hierarchical relationship between quality levels of information (Price and Shanks 2005a).

In order to delve more into each dimension of IQ in Table 1 and derive attributes related to each level, appropriate derivation methods should be applied. Price and Shanks (2005a) suggested that to derive objective attributes of quality such as syntax qualities in IS, theoretical approaches such as integrity theory and mapping cardinality in data bases can be employed. Objective criteria in this study (syntax view) should be based on the rules of specific SM platforms and content representations rules such as the relation between textual features or syntactic correctness (Figueiredo et al. 2013). The subjective dimensions (semantic and pragmatic) should be investigated using empirical methods and based on users' judgments (Price and Shanks 2005a).

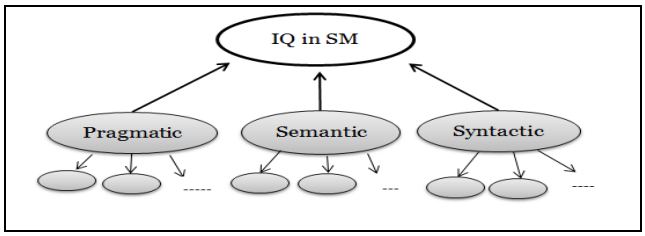

Figure 2. IQ in SM (suggested conceptual model)

CLASSIFYING PRIOR RESEARCH ON IQ IN SM WITHIN THE SEMIOTICS LENS

Having defined IQ in SM using a theoretical and deductive approach, in this section we reviewed existing studies on IQ in SM to derive the initial set of criteria for defined quality categories. The measures and criteria of IQ will be derived from literature and will be classified according to semiotic IQ categories (Table 1). This review also aims to understand how other researchers explicitly or implicitly have defined IQ criteria in SM and to derive the area that should be investigated in future research.

A three-phased, structured literature review method is employed to extract, analyze and interpret literature based on recommendations of Levy and Ellis (2006), and Watson (2002). Overall 42 papers were extracted using the above guidelines. First round filtering included manually scanning titles and abstracts for apparently relevant articles. Backward and forward searches also were done to extract the other relevant papers. The final set included 22 papers which have been read and analyzed to derive IQ measures or attributes. Based on the conformance between definition of IQ dimensions (Table 1) and definition of IQ attributes and measures presented in investigated paper set, the measures were categorized in three syntactic, semantic and pragmatic levels. If the measures had been presented as subjective measures they were classified as either semantic or pragmatic. Few papers had applied Wang and Strong (1996) IQ framework. Intrinsic quality attributes as defined by Wang and strong were classified as semantic measures, contextual quality measures were classified as pragmatic measures and representational qualities were categorized mostly as syntactic rules.

However, the categorization of the derived measures in to IQ levels is not a straightforward task. There are some measures such as usage statistics, user relationships, users' contribution and users' profile points (credibility) which are not IQ attributes but are used and measured as predictors or indexes of the level of IQ specifically in automated information retrieval methods. There are not enough evidences that indicate how these measures are related to IQ attributes. This study categorize these measures as syntactic measures since they are used by other syntactic rules such as language rules to derive high quality information from SM. The popularity of measures such as accuracy, completeness and objectiveness in semantic dimension also reveals how conventional information quality studies are influencing IQ research in SM. This study based on the adoption view believes these measures are not necessarily criteria of high quality information in SM. Some measures also have been defined in different ways in different studies such as completeness that has been defined as a pragmatic measure in some studies and as an intrinsic quality of information (semantic) in other ones.

This approach to derive criteria of IQ in each level from literature has many limitations; 1) studying IQ in SM is a developing area of research and as was mentioned in the introduction there is still lack of strong theoretical and empirical foundations 2) the definition of measures and criteria is not always clear in the investigated papers, many of them has borrowed the definition of quality measures from IQ studies and many of them has used vague descriptions.3) The most important problem in this review is that the current studies are based on the representation view to information (McKinney Jr et al. 2010) and the assumption that there is an "objective reality" which is not consistent with the main assumptions of this study. Although many of these studies have mentioned the importance of contextual factors in defining IQ measures but they treated this dimension in a light way. Despite these limitations the derived classification of IQ measures from literature can be used as guideline to conduct empirical studies (Price and Shanks 2005a)[1].

CONCLUSION

Social media provide a rich variety of information sources for business users. As the availability and use of this content increases, understanding the quality criteria of social media information gets more important. Accordingly, this paper applies a deductive approach to define the concept of information quality in social

[1] According to the page limits list of measures is not presented in this paper

media. Deductive methods justify applying appropriate lenses and identifying basic assumptions underlying the phenomenon.

This study makes several contributions, first the careful attention to conceptualization process and following existing guidelines makes this study an example of construct definition and conceptualization. Second, this study defines information in social media applying a multi-disciplinary view to information and adopts appropriate lenses according to study context and goals. We argue that the conventional definition of information, information quality and information quality measures in IS research is not applicable in the social media context and the new environment necessitates applying new definitions and assumptions. Third, this study suggests a theoretical framework to categorize information quality measures in the social media context. It also suggests the approaches and derivation methods which can be used to derive quality attributes in each category. The conceptual model of IQ suggested in this paper can be considered also as the basis for studying information quality in social media and developing measurement models or theories. By differentiating and assuming a hierarchical relation between pragmatic, semantic and syntax measures, more systematic and accurate research process can be defined to study information quality.

This paper provides a general view of conceptual definition of IQ in SM. However, as was discussed in this paper, IQ in SM is a context dependent concept; the actual conceptualization of the phenomenon should be done considering the context of use and within certain social media platform. This requires conducting empirical studies in a carefully defined context.

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