Abstract

Information behaviour is the arena that covers a wider range of the behaviour of the users in connection with the information systems as well as information that also covers the areas like information need generation, resulting in creation of information, information seeking, sharing, encountering, assessment, management, giving as well as using. Thus information behaviour and its wide range of aspects are analysed in context with varied types of tasks at work, or in everyday life or in the play environments. All these perspectives of the information behaviour researched in relation to the social media usage. On the other hand Social media is considered to be a broad concept, that includes a wide range of internet applications, that provide strong support to social communication between people (whether it’s so direct or indirect, of be it synchronous or non-synchronous). Thus it mainly focuses on:

- Various types of interactions between the users (that is a dialogue or a conversation)
- Creating online relationships and communities (Turban, King, & Lang, 2011).
- User generated content

These social media platforms helps in various types of social interactions, that are being mediated as well as captured through Internet applications that also covers the mobile applications. The online communities that thus, come up show collaborative as well as social information behaviour that is researched by scholars. Social media can also be defined as the user-generated content that arises because of the online social interaction. Some of the researchers have called it as: consumer generated media” or (CGM) (Blackshaw & Nazzaro, 2004) because it illustrates various types of new resources of online information that are being developed, initiated, circulated as well as used by consumers who mainly intend to inform and educate each other regarding the products, personalities, brands, as well as issues.
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A review of Information Behaviour on Social Media from 2009 till 2012
Table of Contents

1. Introduction ........................................................................................................................................... 4
   1.1 What is information behaviour? ........................................................................................................ 5
   1.2 Background ....................................................................................................................................... 7

2. Literature Review .................................................................................................................................. 8
   2.1 Characteristics of Users of Social Media ......................................................................................... 8
   2.2 Social Media Sites – Extensive Sources of Information ..................................................................... 10
   2.3 Information Behavior on Social Media ............................................................................................ 12
   2.4 Interactive Information Behavior .................................................................................................... 14
   2.5 Social Network Sites as Marketing and Branding Platforms .............................................................. 16
   2.6 Social Influence in Networks ............................................................................................................ 18

3. Conclusion ............................................................................................................................................ 19

Bibliography ............................................................................................................................................ 22
1. Introduction

Social media is turning out to be one such major application that has encroached all the spheres of our lives, while casting major impact on the way we live, play, socialize, learn, work and even cast vote. Thus through its kinds of manifestations social media provides a golden opportunity as well as richer environment that helps in analysing the information behaviour. The main reason being huge amount of information in varied forms like videos, images and text format are being recorded as well as stored in publically accessible repositories as well as on the personal devices of the consumers (Wilson, Boe, Sala, Puttaswamy, & Zhao, 2009). Then too there is seen to be scarcity of social media research if considered from the information behaviour perspective.

Online social networks (OSNs) are quite popular these days; rather 10% of the total time spent on internet is on the social networking along with the blogging account. OSNs are used for connecting with each other, finding right content, sharing information and thus disseminating the information. There are various sites that help in providing social links, like in case of LinkedIn, MySpace, and Facebook etc. They provide a network of professionals along with various contacts, whereas platforms like Flickr and YouTube act as networks that help in sharing of content (Benevenuto, Rodrigues, Cha, & Almeida, 2009). Since the traffic on these OSNs is huge it becomes all the more imperative to understand how the users are behaving in case they connect through these platforms. Firstly studying the information behaviour of the users on social networks will allow in evaluating the performance of existing systems, thus will help in improving the site design in better manner as well as helps in developing advertisement designing policies. Secondly finding accurate models of user behaviour regarding information
sharing on OSNs is very vital in the field of social study and helps in viral marketing. Thirdly it will help in analysing how the social networks’ workload is helping in redefining the Internet traffic as it is valuable in helping us to create the next generation Internet infrastructure as well as content distributions systems. That is why this topic has been chosen for conducting literature review. Nicely explained

1.1 What is information behaviour?

Information behaviour is the arena that covers a wider range of the behaviour of the users in connection with the information systems as well as information that also covers the areas like information need generation, resulting in creation of information, information seeking, sharing, encountering, assessment, management, giving as well as using. Thus information behaviour and its wide range of aspects are analysed in context with varied types of tasks at work, or in everyday life or in the play environments. All these perspectives of the information behaviour researched in relation to the social media usage. On the other hand Social media is considered to be a broad concept, that includes a wide range of internet applications, that provide strong support to social communication between people (whether it’s so direct or indirect, of be it synchronous or non-synchronous). Thus it mainly focuses on:

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2004) because it illustrates various types of new resources of online information that are being
developed, initiated, circulated as well as used by consumers who mainly intend to inform and
educate each other regarding the products, personalities, brands, as well as issues. The user
generated content thus depicts information behaviour and also contains important information
that can be searched by the users and they can browse along with consuming it. Six types of
social media that has been identified by Kaplan and Haenlein (2010) are:

- Social networking sites (For example Facebook)
- Blogs & microblogs (for example blogpost.com, Twitter etc.) they support online journalism
- Content communities (for example YouTube, Flickr) they support content as well as virtual file sharing
- Collaborative projects (for example Wikipedia) they support collaborative authoring.
- Virtual game worlds (for example the World of Warcraft)
- Virtual Social worlds (for example Second Life) (Kaplan & Haenlein, 2010)

In addition to all these above mentioned sites following sites can also be considered under social media like online discussion forums; social question answer sites (like Yahoo! Answers); online auction sites (like eBay); voice and video communication sites (like Skype); consumer reviews along with ratings site (like RateADrug and Tripadvisor); collaborative, tagging sites or social bookmarketing sites (like Delicious and CiteULike).
1.2 Background

In recent past the online environment is being analysed by the users in a completely new perspective and in a more commercial manner. The development of online environment has lead to emergence of changing role of social media and the manner in which the marketers communicate with the consumers (Hennig-Thurau, Gwinner, Gianfranco, & Gremler, 2004). Society being highly informational impacts the consumer decision-process as well as the product evaluations. In this phase social media finds a new role of acquiring the information related to products through the channel of peer communication. Moreover it is seen that the consumers are gaining more power by casting influence on other buyers with the help of product reviews or reviews of the services they have used.

Internet along with the virtual communities is transforming the societies, corporations as well as consumers as everyone has now widespread information access through enhanced social networking using social media as well as improved communication abilities (Krishnamurthy, Gill, & Arlitt, 2009). Thus the social networks are being called as the websites that help in linking or connecting millions of users all across the globe, having similar kind of views, hobbies and interests. Some of the well known examples of social media that are very much popular amongst all the consumer levels are YouTube, FaceBook, MySpace, Blogs etc. (Sin, M., & Al-Agaga, 2012). Social media provides a very enriching environment for studying and analysing the information behaviour because in the case of social media huge amount of user interactions are being recorded as well as stored in publically accessible repositories as well as on the personal devices of the users. Therefore this literature review paper also tries to analyse the surveys and the research conducted for past four years during the span of 2009 till 2012, in the field of information behaviour in relation with the social media. The focus is mainly on the social
media networking sites along with the online discussion forums. This literature review will find out the characteristics of the social media users, the main types of information behaviour exhibited by them as well as new types of information that is found within the content contributed by the users.

In the recent years there has been dramatic expansion of the online social networks (OSNs) and their popularity has grown. According to the data collected in 2012, October, it has been found that just FaceBook has 1.01 billion users, who use the site every month. Thus large number of researchers has been attracted towards exploring and studying the information behaviour shown by users on this highly popular, large scale as well as ubiquitous service (Benevenuto, Rodrigues, Cha, & Almeida, 2009).

2. Literature Review

2.1 Characteristics of Users of Social Media

Social Networking Sites (SNS) are being used worldwide. Research shows that around 73% of the adult users of internet use the social networking site (Duggan & Smith, 2013). Many of them use the Facebook but more than 50% used a number of social networking sites.

Many researchers have attempted to reveal the characteristics of the people using the Social Media and have concluded that there is a clear difference in the age, gender as well as nationality of the users.

The SNS is more likely to be used by the young users. They also use these sites more often and their number of friends on the SNS is higher than that of the older users (Arjan & Zaphiris, 2009). Similarly, the SNS is also more likely to be used by the undergraduates. They
use them more often and the number of friends they have on the SNS is higher than that of the graduate students (Park, 2010).

The use of SNS is more likely by women. They have more friends online as compared to men and use it more often (Madden & Zickuhr, 2011) (Moore & McElroy, 2012). Surveys indicate that women use Twitter and Instagram more than men. It was also found that men used media sharing sites like YouTube, blogs, social Q&A sites, wiki sites as well as user review sites more frequently than female students (Kim, et al., 2014). The SNS is used by women to maintain the relationships that already exist whereas men use them mainly for development of new contacts (Muscanell & Guadagno, 2012). SNS is used by men more often for reasons that are task oriented and less for reasons that are interpersonal (Lin & Lu, 2011). Men post risky information on the SNS more often (Fogel & Nehmad, 2009).

More studies have identified characteristics of the use of social media that are even more refined and have found some associations that are unexpected. For instance the users belonging to different educational and professional backgrounds are likely to exhibit patterns of the use of social media that are different. A study revealed that the engineering undergraduates made use of the wiki sites more than the students of social science. On the other hand the students of humanities made more use of the media sharing sites than the science students. The science as well as engineering students are less likely than the humanities students to access the media sharing sites for opinions and news (Kim, et al., 2014).

Few researchers have tried to identify variables other than demographic ones that affect the use of social media. The perception that the user holds of the characteristics of technology. They can be the perception of the ease of use, interactivity and usefulness (Choraria, 2012). They
also include the perceived motives as well as the benefits for the use of social media like gain of social capital, relief from boredom, entertainment, interpersonal utility, convenience and escape. Social factors, psychological factors like type of personality and perceived risk like concern for privacy are the other characteristics affecting use of SNS (Cha, 2010). Apart from these variables the nationality of the students also affected the use of SNS.

2.2 Social Media Sites – Extensive Sources of Information

Researches on information seeking in a broad range of contexts have showed that the most preferred kind of information sources is the human sources. They are more likely to be the first ones to be consulted and used more often. The usage of other channels of information is normally predicted by the social presence offered by them and there are applications that also offer face to face conversation.

Research has revealed that the sources of human information are linked with day to day life information. This shows that the social media sites are perceived as the sources of daily life information rather than formal sources. The main five areas of daily information need are health, finance, entertainment, housing and news about one’s country (Sin & Kim, 2013).

The strong points of social networking sites as sources of information have been studied by many authors. It has been found that certain kind of information like advice, opinions and recommendations are provided only by humans (Dugan, et al., 2008). The sources of information are known to the user personally to a certain extent and are therefore trusted sources having cognitive authority (Skeels & Grudin, 2009). Users usually give localized information as well as
current information (Steinfield, et al., 2009). Information that is provided by the users is customized for the requestor, intermediary functions like researching as well as synthesis and also packaging of that information can be done by the social contacts, users can broadcast questions to the group of users they are familiar with and they can also obtain social and emotional support (Morris, et al., 2010).

Another survey found that the users of Facebook were unlikely to look for information through their network of Facebook. However, they still thought that useful information was given to them by that site. It showed that more information was encountered than sought (Lampe, et al., 2012). Another study showed that social networking was about interaction with friends and not news (Williamson, et al., 2012). Sharing of news was found to be more on Twitter. The motivations for the sharing three kinds of information on Twitter were investigated. These were posts from friends, breaking news and information related to the intrinsic use of the user. Breaking news was found to be the most popular information shared (Xu, et al., 2012). Twitter was also found to be a significant source of news at the times of political or natural disasters well as crisis (Mansour, 2012). It was also revealed that Twitter had a powerful ability to collect information from the scenes of disaster and visualizing it for decision making on relief work. Disaster relief information could also be broadcast using Twitter (Gao, 2012).

SNS was found to be mainly for the purpose of networking and socializing while online forums for discussion were mainly used for the purpose of posting questions, responding with information to questions and voluntary sharing of information (Savolainen, 2011).
2.3 Information Behavior on Social Media

The kind of information behaviour favoured on the social networking sites are information behaviour of daily life, browsing, asking and monitoring, acquisition of opportunistic information, giving, publishing and sharing of information, intermediary roles that are taken up by the users voluntarily like proxy information seeking, summarizing information and forwarding it, behaviour of social information and information communities development and lastly use and evaluation of information.

Survey has been conducted on information forwarding that includes reposting; retweeting as well as propagation of information in the social networks presents online (Kim, 2014). Social media sites have given the researchers an opportunity to develop a rounded as well as holistic understanding of the information behaviour. The main divisions are the questions and their answers and informational as well as socio-emotional support. The ratios of posts that belong to different categories depend on the social media type, topic and the community of the user.

Online behaviour on the social media sites was divided into interactive as well as non-interactive behaviour. Interactive behaviour was further divided into hostile interactive behaviour that includes trolling, flaming, cyber rape and spamming, collaborative non informational behaviour that comprises neutral, humorous and empathetic behaviour and collaborative informational behaviour which consists of announcement, query, response to query as well as group project. Hostile behaviour is considered unproductive. Hostile posts provide information and are memorable. The variety of information provided also widens their views. Thus, hostile behaviour can be further divided into informational as well as non-informational hostile behaviour (Irvine-Smith, 2010).
Investment discussion forums tend to have more of information oriented posts and lesser posts that function as social and hostile while political forums had more of hostile posts (O'Connor & Rapchak, 2012). Social media content allows researchers to study three types of information behaviour. These are critical information behaviour, information integration and use of information. They are interconnected for instance when a particular user posts comments that are evaluative in response to the posts by another user, it can result in a discussion and cause other users to contribute information related to it. Posts following subsequently may make an attempt to make sense of that information and collate the answer that is best.

Some researchers have also investigated biases and weaknesses in information behaviour. They mostly occur media sites that are financial as well as political social. Analysis of posts of finance discussion forum found that the investors showed confirmation bias in collecting and using the information that was posted. Investors with a confirmation bias that was strong were highly confident, expected high performance, traded frequently and lower returns were realised by them (Park, 2010). They were less likely to evaluate information critically as compared to users of health social media sites.

Attempts of the users at information integration and synthesis of knowledge can be observed through various interactive behaviours. Studies found knowledge synthesis to be distributed knowledge, undiscovered public knowledge and authoritative knowledge. Integration of information is usually required to reach a decision particularly in an ambiguous circumstance when the trustworthiness of the information available is doubtful. A type of information integration occurs when community of user attempts to make its identity socially and self-perception (Case, 2010).
2.4 Interactive Information Behavior

Researches on information behaviour on social media have found that users show many types of information behaviour that complement as well as interact with each other. The various types of interactive information behaviour are discussed below.

Everyday Life + Work / School Contexts

Day to day life and work becomes inseparable at times. Everyday lives as well as academic lives appear to be intertwined. Work is the most important part of daily life. The main question here is how does work and school needs or information seeking differs from non-school ones and how they affect one another. They encroach each other’s space as well as time (Kari & Hartel, 2007).

Searching + Asking

Studies have indicated that searching of the web as well as asking one’s social network to have complementary behaviour in case information is required for significant decisions. Detailed information as well as options is identified through searching. The social network of the person is then used to evaluate sources of information, interpret and also confirm the information. Asking gave feedback that was valuable and confirmed the results found through the search engine (Morris, et al., 2010). In another study it was found that besides using human sources for seeking information 83% respondents asked family and friends to help in the evaluation of information sources for using personally. Several searches also involved making decisions to solve problems which had consequences that are real-life and searches that go on for many days.
Informational + Socio-economical

Information provided for support on the social media sites are usually accompanied with support that is socio-economical. Informational as well as emotional support is intertwined and emotional expressions support information communication and add to the information. Emotional support at times is indirectly expressed through the language tone that can cumulatively affect through tone consensus and echoing of the vocabulary over post sequence (Godbold, 2013).

Strong + Weak Ties

Social media sites show strong and also weak ties. Weak ties become stronger if the users continue interacting online or meet offline. There is a difference in sharing information between relationships of these two ties. Information that is shared with a group having strong ties usually stays within the group while information that is shared with weak ties gets disseminated outside the group. This shows that various types of information are shared with different kinds of friends via different kinds of relationships (Goecks & Mynatt, 2004).

Searching + Browsing + Monitoring + Awareness

Distinction was made between the two dimensions of seeking information. These are directed and undirected seeking of information that is whether the information that has been sought can be specified to a certain extent and also active and passive information seeking depending on whether active action is taken by the user to acquire information or passive absorption of information occurs. They were further used to describe four different modes of
seeking information – searching (active and directed), browsing (active and undirected), monitoring (passive and directed) and awareness (passive and undirected) (Case, 2010).

### 2.5 Social Network Sites as Marketing and Branding Platforms

The potential related to sharing of ecommerce information increases the importance of SNS to advertisers, marketers and also others in the commercial field as well as other domains. The definition of social networks include the websites that associate millions of users worldwide who have similar views, interests as well as hobbies. YouTube, Blogs, Facebook and MySpace are the popular social media among consumers (Sin, et al., 2012). The exclusive aspect of the social media along with its enormous popularity has revolutionised the practises of marketing like promotion and advertising (Hanna, et al., 2011).

SNSs are considered by many users as personal spaces that are used for the development of friendships as well as relationship and also providing a means or platform for self-expression creativity. There are doubts about them being viable platforms for marketing. However, studies have shown that they are used for creating information and for interaction which is essential for marketers. Several SNSs permit the users to make their applications for the purpose of social networking thus making information personalization possible. The user’s identity is reflected by SNS and they have an effect on social relations as well as self-esteem.

The impact of social behaviour is also seen on consumer behaviour right from the time of acquisition of information to post-purchase behaviour like statements of dissatisfaction or the behaviours regarding a particular product or company (Mangold & Faulds, 2009). It has been observed that the previous few years the companies have had a great impact on the online
networks. The websites of social media give a chance to the businesses to interact with their potential consumers, facilitate an enhanced intimacy sense with the consumers as well as build significant relations with the potential consumers (Mersey, et al., 2010).

The need of the organizations is to differentiate either by the company or by the brand image and communicate the advantages as well as the product’s positioning. Several marketers believe that companies should be promoting only a single benefit in the concerned market while the social networks allows these companies to look more attractive to the consumers. The high efficiency levels of the social media in comparison to traditional communication channels caused the leaders of the industry to view their opinion that organizations should take part in Twitter, Facebook, MySpace and several other social networks to be able to succeed in the online environment (Kaplan & Haenlein, 2010). A study revealed as per the Internet Retailer a large number of organizations in the top 100 79% had their profile on Facebook, 69% on Twitter 59% on both (What’s in a Retail email?, 2009).

Another study showed that 62% of the consumers read online reviews generated by the consumers. 98% of these consumers found these reviews to be reliable. According to 80% consumers their purchase intentions were impacted after reading the reviews (Pookulangaran & Koesler, 2011). Communication regarding the brand or company and also the users help to create an image that is favourable or unfavourable for the other users who read the posted information and take it into consideration before purchasing. Interaction with the target brand on the social media sites is differently perceived by the consumers and it depends on the message conveyed by them (Shin, 2008). The risk perceived with purchasing and also the amount of money they are ready to pay to purchase a product guides the user and helps him in thinking about the product quality as well as its utility (Ioanas, 2012).
2.6 Social Influence in Networks

The focus here is on the social network data that is the connection between the individuals and the individual behaviour recorded with respect to it. Till now, the complexity in noting social interactions has caused a limitation in the feasibility of the social prediction tasks on a large like identification of the individuals who are more likely to be impacted by advertising, support a cause, adopt an innovative product, abandon a service, or take some action otherwise.

Contemporary researches in marketing show reveal that the network is said to be known and study of adoption can be done at the level of the individual. People in social contact impact each other (Centola, 2010). Network based research in marketing literature has mainly focused on the identification of the causal effects of product adaptation along with articulation of tests to differentiate between causal as well as non-causal effects (Peres, 2010). A technique was devised to identify which members of the social network have impact on the activities of the others (Trusov., et al., 2010). Field tests reveal that firms can also create the word of mouth from outside (Godes & Mayzlin, 2009). In the last few years there has been a shift in focus from determining whether there is existence of influence to understanding of its prevalence as well as mechanics (Godes, 2011). The word of mouth impact is also observed in the case of viral marketing. Another study mainly aims to quantify the contribution made by social influence with respect to the other factors (Aral., et al., 2009). However, the establishment of the social influence does not give accurate answers as to whether the social network data may be utilised for the improvement of prediction and targeting. A study indicates that in several areas of online
diffusion, a very small percentage of the adopters are influenced by the peer in reality (Goel, 2012). Even in cases where individuals do not impact one another, the social ties can be predictive as seen in sociological research. Thus, the predictive value of the social data is investigated without considering the causal influence. This provides the answer to the question of the importance of the data from social network for the purpose of prediction as well as targeting.

3. Conclusion

The above analysis clearly indicates that the rising use of social media will certainly herald a completely new period in the field of research on information behaviour. The manner in which the growth of digital libraries and the online databases has resulted in the generation of several researches on online searching field, in the same manner a new wave of research has surfaced in the field of social media and information behaviour. There are many theories and researches that have come up and focus on varied types of information behaviours like information integration, asking as well as answering. But currently the research on the information behaviour on social media can be said to be in nascent stage.

Till now clear disparity can be visualised in the age, nationality and gender, along with the variations amongst local citizens as well as foreigners, disparity can be seen in the aim along with the frequency of use of social media, number of friends found online, preference towards using particular social media sites along with the varied types of information that is posted on these sites. Further research is however required to find out more in-depth features of use of social media for various age groups, nationalities as well as communities conducting a comparative analysis of their information behaviour. Going ahead of these demographic factors like age group, nationality etc., various social, motivational, technological as well as
psychological factors that affect the information behaviour on social media should also be investigated in very much depth.

It has been noticed that the various types of information’s that are associated with social media platforms are opinions, advice, recommendations, along with practical and experiential knowledge that is connected with everyday life problems, these can be customised also by the particular users as well as the contexts that covers the geographic time as well as location. These everyday issues of life include a varied range of topics like local/foreign news, food, health, shopping, fashion, finance, housing, product reviews, leisure as well as entertainment. The need of the hour is to analyse certain specific issues of the everyday life and how the saliency keeps on changing with the changes in the stages of life, community and situation of any person. Along with the informational support the social media users also seek socio-emotional support form the various other co users, that helps in conveying much more subtle types of information on social media.

It has been found that social media is associated with varied types of information behaviour that are not studied very well traditionally and these behaviours are: forwarding, sharing or information, asking, use of information, answering, integration, critical information behaviour, collaborative information behaviour along with much more passive information behaviour that involves information encountering as well as browsing of required information. There is real time scarcity of theory building in this field that can explicitly give an explanation about information behaviour on the social media. Thus new information behaviour models as well as frameworks are required for synthesising as well as structuring the varied perspectives of the current social media behaviour exhibited by users.
It seems there are many challenges and issues that need to be handled while studying the information behaviour on social media. The reason being all the varied kinds of social media applications encourage as well as support varied types of information behaviour. Moreover, the sites that belong to the same category of social media application are offering totally different services as well as functionality. It is seen that the functionality along with the technology of the social media applications is still evolving. This makes all the more difficult to analyse or develop a framework for studying the information behaviour on social media. With the evolving use of social media, the users are getting adapted to the social media platform, thus they gradually get to know how they can exploit them for their own benefit. This evolving nature of social media regarding the user behaviour whether in the form of consumer or a product or contributor or information seeker, poses a major challenge for researchers to get enduring and practical results mainly from one country to the other.
Bibliography


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<td>The title gives a general indication of the material covered in the contribution, but have to read the document to fully appreciate what is covered. Some potential readers may be lost because they can’t clearly anticipate the material covered by reading the title.</td>
<td>The linkage between the title and the text is not clear. Readers may skip the contribution because they don’t appreciate its relevance.</td>
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<td>Introduction</td>
<td>Introductory statement indicates the main purpose of the contribution in general terms, so the reader has some idea of what will follow.</td>
<td>The introduction does not give an overview of the contribution so the readers are not sure what to expect as they read the text.</td>
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<tr>
<td>Main Body</td>
<td>The main body presents a number of points that allow the reader to understand the argument, but lapses in the writing may force the reader to make some connections between the parts.</td>
<td>The text is not well structured so the reader must stop reading at times to try to make sense of the text.</td>
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<tr>
<td>Conclusion</td>
<td>The main point of the contribution is indicated, but may be stated in an unconvincing manner.</td>
<td>The concluding section does not reinforce or revisit the main point so the reader is unsure about it and likely to misinterpret or forget it.</td>
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<td>Written expression</td>
<td>Minor lapses in sentence structure, such as run-on sentences and unnecessarily complex sentence structures, force the reader to pause and reflect on the meaning of the text. Paragraphs present a complete argument, but may not flow so well.</td>
<td>Many sentences are poorly structured so the reader must stop often to reflect on the meaning of the text. Many paragraphs lack topic sentences or have poor flow so the main points and linkages among explanatory text are not clear.</td>
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<td>Grammar, spelling and punctuation</td>
<td>Grammar, spelling and punctuation are flawless, which allows the reader to focus on the message.</td>
<td>Some minor errors in grammar, spelling and/or punctuation detract from the quality of the text, but do not impair the communication.</td>
<td>Many errors in grammar, spelling and/or punctuation make reading the text difficult and communication is impaired.</td>
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### Concepts and arguments are well developed

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### Accuracy

- The information is largely accurate but imprecise language could lead a reader to misinterpret aspects of the text.
- Although the gist of the information is correct, there are problems with the interpretation of it. A reader can be misled by the text.
- Connections between the contribution and the main topic of the discussion are indicated or implied, but the reader needs to pause to clarify those connections.
- The information is largely accurate but imprecise language could lead a reader to misinterpret aspects of the text.
- Although the text is relevant, this is not clearly indicated, so the reader must guess how the text relates to the main topic.
- The reason why the contribution is important is touched on but not elucidated, so the reader must make some interpretations about the author's view of the contribution's significance.
- Although the text is clear to informed audiences, unexplained points may leave room for alternative interpretations of the text.
- The text is written in a manner that presumes considerable prior knowledge, so the reader must have a thorough knowledge of what has been written about the subject in order to understand the main point of the contribution.
- The text mentions other contributions but neither explains the reference nor substantially adds to it, so there is no clear benefit to the resolution of the main problem from citing the earlier contribution.

### Text is supported by references
| Source indicated | All information and ideas that are not commonly known are supported with references to sources, so the reader has confidence that the information is not based on hearsay or the writer’s opinion or assumptions alone. | Most sources are indicated, but in only a few cases the sources are not given or are ambiguous, so the reader has to check some of the sources. | Sources are cited for some specific parts of the contribution, but no references are supplied for information and ideas that are clearly not the author’s, so the reader has no idea of the validity and authority of the information. |
| Relevant references | Information, concepts and opinions are supported with references to published literature, especially primary (original) sources of information, rather than review articles or textbooks. This allows the reader to independently review the cited sources. More than one reference is cited to support key points, which adds strength and authority to the argument. | One or a few references are used to support the text. Thus the contribution is supported but this may be an idiosyncratic source. Some general references to textbooks are made that could have been replaced by primary references which are more thorough and authoritative. | Information comes from Web sites or other sources that have no recognized authority, so the validity or strength of the source is unknown. |
| Citation style | References cited appropriately in the text, and the correct format is used in the text when citing information, so the reader clearly knows which information is attributable to which source. | Minor lapses in citation format do not prevent the reader from finding the sources in the reference list at the end of the contribution. | Citation format incorrect or poorly placed in the text, so citations distract from reading. |
| Bibliographic information | The reference list contains complete bibliographic information (author’s name(s), publication date, title, source, date, web page accessed), so a reader can easily find the references for their own research. The authority of sources can be evaluated by checking them. | Bibliographic information largely complete, but some information missing so the reader may have difficulty finding some references. Most sources can still be easily checked. | Not all references are listed, information in the reference list is incorrect, or important information is missing from the reference list, so the reader is unable to find the same sources of information and the authority of sources is almost entirely unknown. |

Comments: A neat piece of work. Well written, nicely referenced and in-detail explained.