

## Conceptualizing Information Need: A Phenomenological Study

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### Abstract

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The study investigated, through a phenomenological study, the conceptualization of Information need. A convenient sampling technique was used, ten (10) respondents were used for the study, information was obtained with the interview guide and responses obtained were analyzed thematically. The result of the study revealed that information need is the totality of Human Information Seeking Behavior which commences from the un-programmed, un-conscious, un-systematic and un-planned encounters with various information systems and sources that leads to the discovering of information needs, and to the consciously planned and mechanized search to fill this need providing solution at the long run to the need discovered.

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**Keywords:** Information needs, unstructured information seeking behavior, information needs model

### Introduction

The concept of information needs has been a subject of much debate and no little confusion and part of the difficulty within this concept lies with the troublesome concept 'information' (Wilson, 1981). Buckland (1999) observe that information, which has to do with an individual becoming informed, reduces ignorance and uncertainty, nevertheless, information is itself ambiguous and is used in different ways. In addition to its ambiguity, Saracevic (1999) noted that, although, many lexical connotations of 'information' exist, both within information science and in other fields, it is however being applied daily and widely, and do not provide a deeper or formal understanding and explanation. This has however led to the misinterpretation and lack of understanding of the concept 'information and information need'.

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A confusion arises between what is intended by information need research and what is expected of such research. Nevertheless, such studies do not have potential practical applications (Wilson, 1981) of what information need really is. The difficulty posed by the concept 'information needs' has been because information need has not been meticulously separated from information either mentally or physically. In the real sense of it, information and information need are two different entities. Although the various methodological approaches to information seeking behavior bring information need of information users out of the blue, and thereby providing an abstract interpretation of what information need is to the reader who is then unable to conceptualize the concept. Information studies have tend to bring and start the chain of information use study from the conscious, meticulous, systematic, and programmed search behavior (e.g Wilson, 1981; Ellis 1989; Saracevic, 1999; Summers et al, 1999; Wilson, 2000; Järvelin & Wilson, 2003; Godbold, 2006). Although, Wilson (2000) provides information need definition model and places emphasis on the stages in the unfolding problem solving process. To Wilson, information seeking is embedded and motivated by four stages: problem identification, problem definition, problem resolution and potentially, solution statement.

As part of the search for the satisfaction of information needs, an individual may engage in info-seeking behavior. This implies that information seeking may not occur at all, if there is no need for it or if the need is not recognized. Wilson (1981) states that, there may also be a delay between the recognition of this need and the information seeking behavior. However, 'information needs' could either be a programmed or unprogrammed, unconscious or conscious, unsystematic or systematic, unscientific or scientific and unplanned or planned search behavior discovery of a gap (as in the case of Cronin, 1981; Timothy, Kevin, William and James, 2008), observed by a potential information user, who then defined this needs directly proportional to cognitive, experience in information handling, accumulation of knowledge levels (Crawford, 1978) and specification of fields (Voigt's, 1961) and seek information to fill this gap. In this definition, three things should be noted about information needs:

- i It is either a unprogrammed or programmed, unconscious or conscious, unsystematic or systematic, unplanned or planned and unscientific or scientific search behavior.
- ii there is the discovering of gap.

iii All information users were once potential information users.

Most of the previous views of scholars about information need only have the second item above in common as compared with the arguments in this paper. However, the combination of these three forms the basis for this paper. This paper, seeks to conceptualize in practical term, where information come from, and also merge previous views about information needs to argue what information need really is, through a phenomenological study of users experience with information need identification and definition. Another important issue to be addressed in this paper is to ascertain which of the concept (information or information needs) comes first. That is, in the chain of information behaviour which comes first, is it information or information needs?

### **Statement of the Problem**

There has been confusion in the concept of information need and thus mis-conception of the concept. Other models and studies of information needs conceptualised information need as a gap to be filled. This definition is not encompassing and does not provide a complete definition of information needs. Drawing upon the study of Wilson, (1981); Ellis (1989); Saracevic (1999); Summers et al (1999); Wilson (2000); Järvelin & Wilson (2003) and Godbold (2006), there is still a dare need to bridge the gap of this confusion on this concept- information need. Having no clarification on this concept may put into confusion scholars and students of information studies disciplines.

Also, Information seeking, which is an important and integrated part of work domains and work practices has been the focus of many research studies in information science. While many different models of information seeking have been proposed, they mostly assume that the information seeker is an individual interacting with complex information spaces (Saleh and Large, 2011) and emphasized on the conscious, planned and the meticulous search of information. Are all information seeking processes rational? How does a potential information user discovers he or she has an information needs? What pattern do they follow to discover and meet their information need. To this end, this study investigated, through a phenomenological study, the conceptualization of Information need among information users.

In connection with this, the following research questions would guide this study:

1. How do information users conceptualize information needs?
2. What is the information need discovery pattern among potential users?
3. How do information users meet their information needs or what is the information seeking behavior pattern to meeting users' information needs?
4. Are there differences in the patterns of the processes of information needs discovering and that of information seeking to meet the various information needs of users?

### **Previous Information Needs Models**

Various models, theories and studies have been provided on information and information needs. The review of such gave a leap for this study. As the great scholar, Sir Isaac Newton said:

*"... If I see farther, it is by climbing the shoulders of giants."*

This assertion is true for scholars in information studies. Voigt's (1961) model describes three types of information needs identified by scientists. The scientist's first type of information need is to keep current in relevant fields of study. The second need is the scientist's need for "some specific piece of information" (Voigt, 1961, p. 21). The third type of information need, which occurs with the least frequency, is the need for an exhaustive search; the need to find all of the existing relevant information on a specific subject or topic, as in the case of a dissertation topic (Voigt, 1961). The exhaustive search is the type that provides the scientist with enough information to determine that the search process can stop. The three types of needs – monitoring, finding specific data, and searching exhaustively – require varying amounts of search effort. By connecting the information need to the information problem, individuals decide how much information is needed in relation to the nature of the problem. Although, the work of Voigt's (1961) is important to this present study, however, his study did not address how information needs come to play. His work only majors on searching to meet the discovered needs (which we do not know how this needs were discovered).

Case (2002) states that human beings are born ignorant, however, there is a constant search to satisfy their ever increasing quest for resolving problems related to survival. This implies that humans must first discover their information need before they seek to meet them. Information seeking is seen as a natural and necessary mechanism of human existence (Marchionini 1992), however it is a function of the information needs definition and recognition. Attfield, Blandford & Dowell (2003) have affirmed that information seeking does not occur in a vacuum but invariably is motivated by some wider task. It is well accepted that to understand information seeking we must understand the task context within which it takes place. This was what Wersig (1971) referred to as the situations motivating information seeking behavior and he called the user's *'problematic situation'*. In other words, it is the gap the user wants to fill. This task helps define the potential users' information needs and they are functions of users' unconscious and unplanned interactions with various information systems and sources.

Attfield, Blandford & Dowell (2003) tried to explain information seeker's wider task and how it can best be represented and understood. They found that there are some levels of uncertainties that occur on the part of users' engagement in information seeking process. Kuhlthau (1993) argued that these uncertainties are particularly persistent characteristics of an information seeker's experience, underlying all aspects of information seeking and searching (Wilson, Ford, Ellis, Foster & Spink, 2002). Most studies failed to recognize how information needs of users are determined. Belkin, Oddy & Brooks (1982) argue that an information need arises from a recognised 'anomaly' in the user's state of knowledge concerning a topic or situation, and that in general, the user is unable to specify precisely what is needed to resolve that 'anomaly'. In this study, this recognized information need of Belkin *et al.* (1982) is obtained from the unconscious, unplanned and unprogrammed activities and relationship by the user with various information systems and sources. According to Belkin *et al.*, there are times when a user is able to specify what information they require, but more usually the information that is required cannot be clearly specified in advance. Byström and Järvelin (1995) classify tasks as ranging from automatic information processing tasks (which in this study is the programmed, conscious and planned aspects of information seeking process), which are *a priori* completely determinable (and could, in principle be automated, planned, structured), to those they refer to as genuine decision tasks, which are unexpected, new and unstructured.

To Timothy, Kevin, William and James (2008), people often need information when need arises to perform certain tasks. Sometimes, the information required is essential to the task at hand, such as finding a hotel for the night. Other times, the need is associated with a question prompted by a conversation or a nearby object (e.g., a billboard). Based on the importance of the need and the amount of time available, people use a variety of strategies to obtain desired information. Also, the work of Timothy *et al.*

(2008) is also important to this study, howbeit, their work also failed to specify where and how this information need comes. Information seeking process has been approached and viewed as a rational problem solving process and in most cases it involves a dynamic pattern and this patterns are subjected to changes in terms of individual differences (Allen and Kim 2001; and Solomon 2002). This is probably due to individual differences with regards to the potential information users' inner processes, information habits, needs, cognitive abilities, learning outcomes and personality traits (Heinstrom 2003).

For, Devadason and Lingam (1996), day-to-day work and lack of self sufficiency constitute information needs. Also, Devadason and Lingam's (1996) work failed to reveal how these needs come to being. This information need represent gaps in the current knowledge of the user. There should be a relationship or reaction with some external forces that reveals the need for such information, thus information needs. This present study seeks to fill this gap. Furthermore, Devadason and Lingam (1996) clearly added that, apart from the expressed or articulated needs, there are unexpressed needs which the user is aware of but does not like to express. The third category of need is the deliquescent or dormant need which the user is unaware of. But the information services provider may be able to bring to light these needs (Cronin, 1981). A need is specific and generally time bound either immediate or deferred. In the case of interest, the information provided may be used or may not be used. In the case of Cronin (1981), whether information need is expressed, unexpressed and dormant, until it is revealed, it is either the person is operating in information ignorance or the individuals have not yet relate with an external force that will reveal such need (s). Thus posing a question, how then does this information need come? This is the gap this present study seeks to fill.

Crawford (1978) showed that, information needs depend on: work activity, discipline/field / area of interest, availability of facilities, hierarchical position of individuals, motivation factors for information needs, need to take a decision, need to seek new ideas, need to validate the correct ones, need to make professional contributions, need to establish priority for discovery, etc. No matter the area of specification, and what it depends on, how this information need is discovered with respect to specific areas of individuals is not known. This is a major gap this present study seeks to fill.

Furthermore, information needs are affected by a variety of factors such as: the range of information sources available; the uses to which the information will be put; the background, motivation, professional orientation and other individual characteristics of the user; the social, political, economic, legal and regulatory systems surrounding the user; and the consequences of information use (Paisley, 1968). It is pertinent to draw attention to the fact that, Paisley (1968) was only referring to information seeking behavior and not information need determination. This is because information need determination may be in most occasions not planned, howbeit, information seeking to meeting the information need is a planned behavior. This shows that there has been a mis-conception in the study and literature of information needs and information seeking behavior. This implies that, information needs identification is a complex process. Information seeking may commence at the end of information need discovery. Some of the factors adding to the complexity of information needs according to Devadason and Lingam (1996) are:

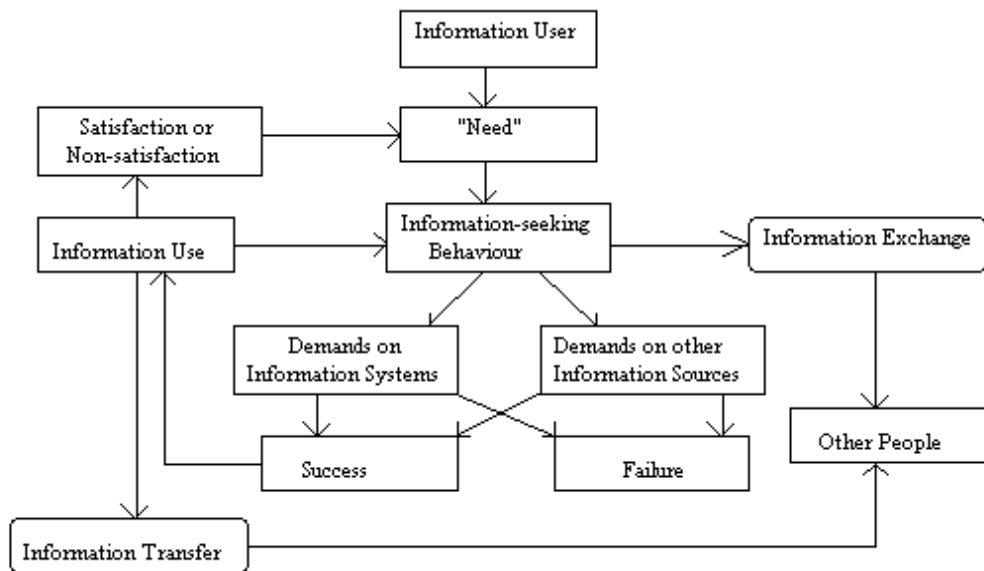
- i. Same information is perceived by different users differently as their information need. (Value systems of users differ, different cognitive and affective potentials due to the nature of work).
- ii. Researchers need original documents whereas planners need digests of 'point of view' (opinions);
- iii. Information is put to different uses (R & D personnel, application developers and technicians all put information to different uses). This use determines how information needs are conceptualised by different individuals;
- iv. Need is satisfied by having access to the identified information in a particular package and form, and at a suitable time to meeting the needs discovered;
- v. The flow of information and channels of communication are complex and add to the complexity; and

vi. Individual preferences and behavioural aspects add a further dimension.

Apart from the complexities mentioned above, there are problems due to individual behaviour: First, a user may not like to reveal his/her need as s/he may like to show that s/he is above (any) requirements and that s/he knows. However, knowledge and information does not operate in a monopoly market, neither an oligopoly, it is however a perfect competitive market. This is because the advent of web 2.0 and the internet have brought about free entry and free exit of various information sources and studies which are made available on the net. However, in some cases, to divert or mislead, s/he may give, or just because someone else is getting information s/he may give a pseudo-need to receive the same information. This may make such information useless, because information provided without need is useless. Information is only useful when it has a problem to solve or a need to be met. Second, an interaction of all the above factors makes the process of identifying information needs akin to carrying out an investigation or detective work, and is one of the 'grey areas' of research in Library and Information Science for the past few decades.

Wilson (1981) drew attention to the interrelationships among concepts used in information-seeking behavior. According to Wilson, information-seeking behavior results from the recognition of some needs perceived by the user. That behavior (which is the conscious, planned and mechanized type as conceptualized in this paper) may take several forms. For example, the user may make demands upon formal systems that are customarily defined as information systems (such as libraries, on-line services, or information centers), or upon systems which may perform information functions in addition to a primary, non-information function (such as estate agents' offices or car sales agencies), both of which are concerned with selling, but which may be used to obtain information on current prices, areas of 'suitable' housing, or details of cars that hold their second hand value). Alternatively, the user may seek information from other people, rather than from systems, and this is expressed in the figure 1 as involving 'information exchange'. This is the information seeking process. Also, how these needs come to being is a gap this study seeks to fill.

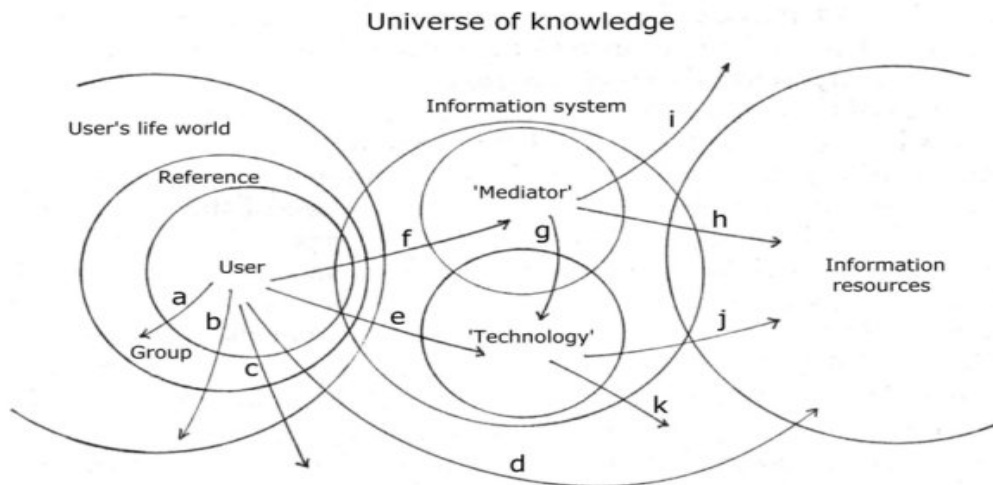


**Fig 1: A model of Information Behavior**

Source: Wilson (1981)

Wilson (1981) further states that, within the field of user studies, the investigation of 'information needs' has presented seemingly intractable problems. Progress towards some theoretical understanding of the concept of 'information need' has been slow. This fact is recognized by authors in the field of users study such as Menzel (1960), Paisley (1965), Devadason and Lingam (1996), Wilson (2000) among others. The reason for this has been attributed to inadequate methodology and the failure to do research that is 'cumulative'.

Although, many of these works have been very useful in information studies, however, the conceptual understanding of the 'information need' problem remains generally unresolved. This is a major gap this study seeks to fill.

**Fig 2: The Context of Information Seeking**

Source: Wilson (1981)

Furthermore, the reason for the slow progress towards theoretical understanding of the concept of 'information need' is partly attributed to the failure to identify the context within which information needs investigations are carried out. Also, in figure 2, Wilson clearly noted that, users make contact with a variety of information systems nevertheless, he never stated whether these contacts were conscious or unconscious, a gap this paper tends to fill.

Wilson, in general term, showed the difficulty in the complexity of the 'real' world and abstract elements of the real world within the concept of information seeking. The 'user's life world' is defined as the totality of experiences centred upon the individual as an information user, and in addition, with the various systems that he/she has been in contact with in the cause of his information seeking. Within this life-world, one important sub-world is the world of work, within which there exists various groups with which the user identifies: fellow professionals, the peer group within an organization among others which could also influence the information needs and seeking behavior of users.

According to Wilson, the information systems which users come in contact during information seeking process include 'mediator' (generally a living system, i.e. a human being) and the 'technology' (used here in the general sense of whatever combination of techniques, tools and machines constitute the information-searching subsystem).

The information system must have access to various 'embodiments of knowledge', phrased in this general way to indicate that such embodiments may be documents or living people. Wilson also added that, paths a- k on the diagram (Figure 2) show some of the possible search paths that an information seeker may use directly through or may be used on his behalf by the information system and its subsystems, which however consists of four relevant groups:

- paths a, b, c and d identify search strategies by a user independent of any information system, and will be referred to as 'Category A' paths;
- paths e and f identify search paths involving either a mediator or an information system's technology (manual card file, computer terminal etc.) – Category B paths;
- paths g, h and i identify search strategies employed by a mediator to satisfy a user's demand for information – Category C; and
- paths j and k identify strategies employed by a sophisticated technology on behalf of either the user or the mediator – Category D.

If a user chooses to investigate any of these categories of search strategies we are clearly investigating 'information-seeking behavior' rather than the user's *need* for information (and these paths consist of the structured, planned and mechanized paths).

Information-seeking may not occur at all without recognition of information needs, and there may be a time delay between the recognition of the need and the information-seeking acts; or, in the case of affective needs, neither the need nor its satisfaction may be consciously recognized by the actor; or a cognitive need of fairly low salience may be satisfied by chance days, months or even years after it has been recognized, or the availability of the information may bring about the recognition of a previously unrecognized need. Also, the situations in which information is sought and used are social situations therefore purely cognitive conceptions of information need are probably adequate for some research purposes in information science, but not for all.

Although, Godbold (2006) stated that, information seeking behavior order may be reversed or convoluted, includes dead-ends changes of direction, alteration, abandonment and beginning again, and from confusion to revelation and back again until the information excursion is over. However, there is need to also show how such confusion (which provides the gap for this study) comes into being.

### **Which Comes First: Information Need or Information?**

This can be argued in two ways: Foskett (1990) defined information as data having been incorporated into coherent structure of ideas and communicated in a manner that enables others to understand that inherent significance. Olatokun and Tiamiyu (2005) stated that communication chain model begins by recognizing data as the primitive symbols for communicating ideas. Data is a subset of information. This shows that in the conscious settings, information need must first be discovered, however in the unconscious perspective which leads to the conscious, meticulous, systematic and scientific searching or seeking pattern, information comes first. Because one has to be informed before he recognises his/her illiteracy to meet such needs. Information need discovery are process of piles of unordered and unorganised data and/or information settings relationship with external sources which a potential information user interacts and relates with, either consciously or unconsciously which helps shaping and defined the user's information need. To buttress this, Wilson (1981) states that, user information seeking behavior (which is the conscious and ordered behavior) is as a result of the recognition of some need perceived (or discovered by the user) (this time the unplanned, unordered, unconscious, and unprogrammed pattern of discovery).

Kim (2008) states that, human information seeking behavior aspires to complete a task through information acquirement. In a nutshell, information seeking behaviors are embedded in real-life tasks in disparate domains. Also, it has been assumed that information seeking is context-dependent. It is generally agreed that the user's information need is prompted by a situation arising in daily living (Kuhlthau & Vakkari 1999), this could be unconscious, unplanned, unordered, unorganised, etc; thus, information seeking is shaped and mediated by a situational context. This also implies that, information need must first be discovered (through an unconscious and unorganised pattern) which would lead to the conscious, meticulous, systematic and scientific searching or seeking pattern of the defined information needs. Also, Solomon (2002) said, "the task is a fundamental force that influences how and why people select sources, discover information in sources, evaluate information so discovered in relation to the task, and gain new insights related to the completion of the task." Within Solomon's view, information needs and seeking could be seen as inter-twinned, however, information needs need to discovered, recognized and defined before a user would go for searching and seeking the defined-information needs.

Solomon's view brings about the context of serendipity. Information Serendipity is a concept used to define when a potential information user meets his or her information needs by chance. Which shows that, information seeking may also be unplanned, unordered, unorganised, among others.

### **Theoretical Underpinning for this Study**

Wilson (2000) provides an information need definition model and places emphasis on the stages in the unfolding problem solving process. The aim of Wilson's model is to provide a means for conceptualizing the stages of problem resolution within which information seeking is embedded and motivated. The model dissects problem solving (meeting information needs and using information obtained to solve this needs) into four consecutive process stages: problem identification (At this stage the potential user asks, 'what kind of problem do I have?'), problem definition ('exactly what is the nature of my problem?'), problem resolution ('how do I find the answer to my problem?') and, potentially, solution statement ('this is the answer to the problem.').

This study seeks to fill various gaps in the information need definition model of Wilson. First, it majors on the problem identification, recognition and definition (which in this study is termed information needs). Second, stages one and two of Wilson's information need definition model lead to the discovery, recognition and identification of gap to be filled by potential user. In the first stage of Wilson's information need definition model, how a potential user comes to recognize the kind of problem he or she has and that he or she needed particular information to solve this need was suspended. This is a major gap this study seeks to fill.

### **The Conceptual Model for this Study**

Wilson (2000) described information behavior as 'the totality of human behavior in respect to sources and channels of information (as conceptualized in this paper may include the programmed and/or unprogrammed, unconscious and/or conscious, systematic and/or unsystematic and scientific and/or unscientific search behavior that ranges from the interactions and relationships with various information systems and sources to the discovering of gap(s) (information needs) to the programmed and/or unprogrammed, unconscious and/or conscious, systematic and/or unsystematic and scientific and/or unscientific searching or seeking pattern to fill these needs).

This may also include both active and passive information seeking. In the light of this definition, it is however incomplete to start the modeling of information seeking behavior from the gap identified or the information seeking process to meeting the needs. Although as stated by Wilson (1999), the three core elements of information behavior are information need, seeking and use, however many psychological (both rational and irrational; order or disorder, passive or active) process and interactions must have taken place, which collectively bring about and help a potential information user to recognize, identify and define his/her needs. This however also helps define the kind of information the user will go for.

Furthermore, Wilson (1981) states that the availability of information may bring about the recognition of a previously unrecognized needs. This is also serendipity in information needs discovery. This shows that the life cycle of information seeking of an information user doesn't commence at the conscious and planned information search to meeting the information need. Also, the information seeking and use process is a cycle in the affairs of humans which makes living progressive until man leaves the earth, because information and knowledge are elements that ensure continuity of the earth and its inhabitants. In addition, it also shows that information needs, often times, are a result of various planned or unplanned, structured and unstructured activities of data or information manoeuvring, manipulating or exchanging between a potential information user and any information system or source. These could include the programmed and/or unprogrammed, unconscious and/or conscious, systematic and/or unsystematic and scientific and/or unscientific search behavior. This definition buttresses Wilson (1981) who stated that information user's life is the totality of experience (of information handling and processing) centred on individual as a user.

In addition, although, Wilson stated that there is an interrelationship within the physiological need (needs for food, water, shelter, e.t.c) affective needs (psychological/emotional needs such as need for attainment, for dominion, e.t.c) and cognitive needs (such as the need to plan, to learn a skill, e.t.c), however, information needs can also arise consciously or unconsciously through the conscious search for these interrelated needs of man mentioned above. This again is serendipity in information needs discovery. Thus, Wilson stated that to clearly explain information needs, all these human needs have to be considered. This is because individual tends to directly discover their information need when consciously and/or unconsciously searching to meet these human needs.

Merging the two views of Wilson together (i.e information needs as information gap observed or discovered through various dynamisms of data and information manoeuvring, manipulating, exchanging between a potential information user and other information sources or systems), and information needs as a by-product of conscious search for human needs, it could be deduced that, the stage before the discovering of the gap (information need), most often could be unplanned or planned, programmed and/or unprogrammed, unconscious and/or conscious, systematic and/or unsystematic and scientific and/or unscientific search behavior. This is because, an individual, for instance who is a lecturer at the university, putting in consideration the psychological needs, emotional needs and cognitive need, searches for daily bread (even more than to meet up with the standard of living) might discover he/she needs more than just the psychological needs with time. He/she then searches for higher attainment and even dominion. At this point, he/she discovers that, he/she needs some skills and then decided to go and learn some skills that will enhance his competitive edge to attain greater height and dominion.

At every stage of manoeuvring, manipulating and exchanging of data and information, either planned or unplanned, this gap (information need) can arise. Wilson (1981) states that most often, as part of the search of information needs, an individual may engage in information seeking behaviour to fill this gap observed or discovered, however, the dynamism of human exposure, conscious and unconscious manoeuvring, manipulating and exchanging of data and information with the types of environments, information sources and systems provide basis for the dynamism and differences in information needs definition and articulation.

However, often times, information users and studies tend to forget the unconscious/conscious, unplanned or planned experiences, exposures, manoeuvring, manipulating and exchanging of data and information with various environments, information sources and system and tend to remember and conceptualize only on the conscious and planned search or seeking behavior to fill the information need or gap. This is because, often, the former might be done in an unorganized manner and in ignorance without recognition and irrationally, while the latter is done in an organized and knowledgeable strategized and planned method and rationally. This could buttress the definition of Hollnage (1980), of information science that it is concerned with the use of information by human and concerned specifically with the way individuals search information, systematically as well as unsystematically.

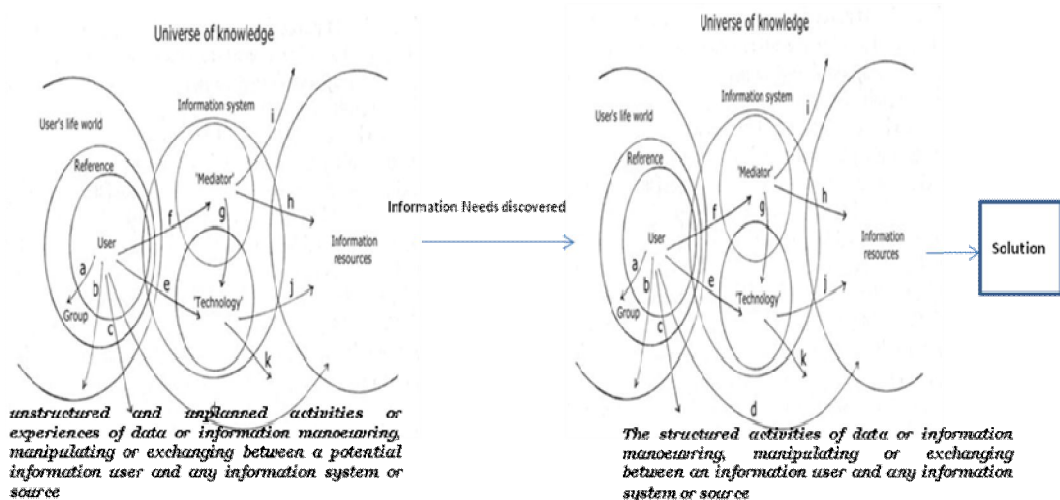
Also, Bartlett and Toms (2005) stated that there is often times a shift in perspective and emphasis placed on the link between information needs and uses depending on whether the focus is on needs or uses. Thus, most studies on information studies have focused on the use of information. Even in studies and articles on information needs, scholars still focus on information use.

In respect to information needs, information uses linked to information needs can be used in understanding a problem, i.e. to better comprehend a specific problem. However, such information need and gap as argued by Wilson (1999) arises from situation (interactive activities of potential information users with the various information systems and sources) like a person's environment, social roles and individual characteristics. Wilson (1999) concluded that these situations constitute barriers which must be overcome before information seeking takes place. These various interactions tell why Dervin (2000) states that humans make sense individually and collectively as they move on: from order to disorder and from disorder to order (unstructured/unplanned to structured/ planned).

Thus, the sense making of Dervin (2000) commenced from the unstructured/unplanned experiences, encounters and interactions with the world, where a potential user make sense out of his or her various encounters (either through unplanned or planned) and making sense to shaping his or her information need (the gap). This was referred by Wilson (1999) to as interactive situations of social roles and characteristics to the structured/planned experiences, encounters and interactions with the world which according to Dervin, it is a conceptual journey of information seeking to filling the gap. This, however, is realised through the unstructured/unplanned experiences, encounters and interactions of the information user.

Godbold (2006) modelling Wilson and Devin stated that, a sequential progression of information behavior has been depicted; the individual experience information need, goes out to seek information, finds it and thus solves the need. However, these activities were the conscious seeking behavior which set at impetus by the needs and gaps discovered through the unconscious/unplanned and unstructured experiences, encounters and interactions of the individuals with their environment, social roles, characteristic, e.t.c. Often time, individual factors can also be considered, such as, educational qualification, work roles, position held at work, e.t.c.



**Figure 3: Conceptual Model for this Study**

Source: The Author

The school of thought governing this model is that, individuals needs definition and identification occur from constant relationship with various information systems and sources which may in one way or the other help them to recognize, define and identify such information needs. This process could most often be a continuous process of unconscious and unplanned dynamisms of data and information manoeuvring, manipulating, exchange between a potential information user and other information source or system. This may lead to structured activities of the conscious dynamisms of data and information manoeuvring, manipulating, exchange between a information user and other information source or system to meet this need.

### Why Phenomenological Study?

Phenomenological study in the past are only directed to nursing and medical fields, nevertheless, in recent times, attention have been drawn to the use of phenomenological approach to studying telecommunication by researchers (Ebrat, n.d.). Phenomenology is simply the philosophical study of the structures of subjective experience and consciousness and it is primarily concerned with the systematic reflection on and study of the structures of consciousness and the phenomena that appear in the acts of consciousness.

Information needs and seeking behavior are daily experience individuals undergo especially to fulfilling certain tasks that are germane to their lives, work, activities, academics, among others.

It is pertinent here to employ a phenomenological approach to study the experiences of information users in information, recognition, definition and identification so as to be able to conceptualise, in a more practical term the pattern of information needs, recognition, discovery and identification.

## **Methodology**

The study is a phenomenological study and a qualitative research, however a grounded research. This is because the study seeks to provide a model for information needs recognition, definition and identification. The population of study is the University of Ibadan and include only post graduate students of the institution. In addition, a convenient sampling technique was used and a total of ten (10) respondents were selected for the study. The instrument used for the study was the interview guide, which was used to collect information from the respondents.

Questions included in the research guide are:

- i. How do you understand information need of individual?
- ii. Have you at any time discovered you have "need for any information"- Explain?
- iii. How do you come to discover such needs of information?
- iv. Was this discovery conscious or unconscious, planned or unplanned?
- v. How do this information needs borders you?
- vi. How did you solve or meet this information need?

Information obtained from the respondents and their experience in information needs discovery, recognition and identification in their daily activities and services were obtained. These were used to develop a composite description of the essence of the experience for all of the individuals and also used as a basis for the conceptualisation of information needs. This description consists of "what" they experienced in trying to identify their information needs and "how" they have experienced it. Their responses were transcribed and analysed thematically.

Results of the study was used to provide a theory based on the pattern of information needs recognition, identification and definition with the programmed information seeking patterns of other earlier scholars in the field of users study in information science.

## **Results of the Study**

With regards to how information users understand and defined their information needs, various responses were provided. One respondent defined it as:

“..., it is an urge or desire of individual to get or obtain information to meeting or solving certain problem”.

Another respondent sees it as:

“..., the personal needs of an individual, not general, but unique to a specific individual. It is a need that arises from personal discovery”.

With regards to how such information needs are recognized and discovered, various responses were also provided by respondents. Respondents provided their experience on how their information needs were recognized and discovered. One respondent stated that,

“..., I never knew I needed information for a better relationship. However, along the line in my relationship, I discovered there is much I need to learn about in relationship because I was seriously having constant problems with my fiancé and we seem not to be making head way in it. This prompted me to seek for counsellor's help. Some situations came up which made me realise the need for such information.”

Another respondent shared her own experience.

“... well, most often, discovery that you need particular information are not planned. This is because, most often, you just stumble into this need and you discover you have a need to be met. This prompts you to go for it.

For example, when I suddenly discovered my parents cannot meet my needs again, I consciously go for searching for information about jobs to get myself empowered and employed.

Another respondent buttressed this point further,

"..., there was day I mistakenly tampered with my phone and I could not access and operate it. The phone then requested for a security code which was not provided by the maker at purchase. I consulted the manual, to no avail. So I informed my husband. This made him to go to the internet to search for this information and at last he got it and the problem was solved."

Another respondent added that,

"Most often, these scenarios that led to the recognition and discovering of information gaps are unplanned."

On how individuals seek for information to meet their information needs, various responses were also provided. To this effect, one respondent stated that,

"..., eh eh eh eh, I went searching from everyone and sources. I think I should be able to get and provide information to meet my problems. So I prepared and embark for such quest to meeting this information need. Sometimes, it may not be planned, I might just stumble at the information I needed to meet my information needs.

Another respondent stated this,

"..., first, I define this information need by giving it a form, something I can hold unto. Second, I determine where I can get such information. Third, I think of the stress to be involved, cost, time and so on. I can now go to the internet to get myself equip and knowledgeable about that part."

Another respondent stated that,

"Since I know my problem and I know what I needed, I decided to go to various sources and places that I have idea can meet my need."

## Discussion of Findings

The result of this study provided for the definition of information need support Devadason and Lingam (1996) that, day-to-day work and lack of self sufficiency constitute information needs. The recognition of the lack of self sufficiency is an individual discovery that needed to be made, and this provides an urge to get such information to meeting such discovered self insufficiency. Individual is used here because the entity might not necessarily be a person, it could also be an organisation. This also bolsters Kuhlthau & Vakkari (1999) that user's information need is prompted by a situation arising from daily living.

The result of this study revealed that, *information needs process is an unprogrammed, unconscious, unsystematic and unscientific search behaviour discovery of a gap or of ignorance*. This further elucidates the definitions of Wilson, (1981); Ellis (1989); Saracevic (1999); Summers et al (1999); Wilson (2000); Järvelin & Wilson (2003) and Godbold (2006) that information needs is a gap that needed to be met or filled. They simply defined information need as a gap. Howbeit, information need is more than a gap. Although, it is a gap, nevertheless, this gap comes from an individual behavior involving in the process of recognition, identification and discovering. This process could be unprogrammed, unconscious, non-systematic, unstructured, among others.

The result of this study also contrast Wilson, (1981); Ellis (1989); Saracevic (1999); Summers et al (1999); Wilson (2000); Järvelin & Wilson (2003) and Godbold (2006) that the chain of information use study commences from the consciously, meticulously, systematically, scientifically and programmed search behavior known. Rather, information use behavioral study should start from the un-programmed, unconscious, unsystematic, unstructured and unscientific search behavioral discovery of the gap. Conceptualizing what information need is and how it is achieved can help reducing the confusion students and scholars of information studies and science undergo when trying to define information needs.

The result of this study also revealed that the magnitude of the information needs would tell whether such information need would border an individual or not.

However, the necessity and the intensity of the needs, sources to obtain such information, time and cost of obtaining such information, urgency to meet the information needs may also contribute to whether such information need borders one or not. Sometimes, information seeking to meeting information needs may not be planned as potential users may just stumble at such information which could be of importance to meeting their information needs. This brings about serendipity in meeting information needs among users. However, in some cases, the search for information to meeting information needs can also be planned, structured, conscious, systematic and programmed.

To this end, information need can be defined as a problem of lack of information or the discovery of information illiteracy in a particular area or aspect of individual's natural life which is discovered through an unprogrammed, unconscious, unplanned, unstructured, unsystematic and unscientific search behaviour. This discovery provides the gap of Wilson, (1981); Ellis (1989); Saracevic (1999); Summers et al (1999); Wilson (2000); Järvelin & Wilson (2003) and Godbold (2006). The meeting of this need creates information literacy in that particular area or aspect (where such need is discovered) of the individual's natural life. Other factors may come to play to determining the level of literacy in this aspect and thus bring about a variation of literacy of the information to a particular need among several individuals or information users having such needs. This factor may include but are not constraint to gender, age, educational exposure, experience in the field in questions, among others. Also, this does not deny the fact that the same individual do not have another information need when previous discovered ones are met, but he/she has to, through the same unprogrammed, unconscious, unplanned, unsystematic and unscientific pattern discover such gap and illiteracy. Thus, information need discovery could be termed information illiteracy to a specific need and on the other hand could also be ignorance identification of a specific need. The unprogrammed, unconscious, unplanned, unsystematic and unscientific pattern discovery of such gap (information needs) is different from the meticulous, planned, systematic and conscious pattern taken to search for information to meeting the information need (gap) discovered. But information seeking may also take the unprogrammed, unconscious, unplanned, unsystematic and unscientific pattern (serendipity) as when the individual suddenly come in contact with the information he/she may need to meet a particular information needs or gaps.

When approached from the perspective of information need discovery, information comes first because you have to be informed to discover you have a need. However, when in the perspective of the information seeking behavior, information need comes first. Furthermore, there is the conscious and the unconscious, planned and the unplanned and structured and the unstructured aspects of information behavior which provides a complete life cycle of information seeking behavior.

This programmed and/or unprogrammed, conscious and/or unconscious, systematic and/or unsystematic and scientific or unscientific search behavior discovery of gap or of ignorance could be a beginning to a well defined and conceptualized information need. Also, the activities of the interactions, maneuvering and manipulating of information systems and sources with the information user in the seeking behavior of Wilson (1981), could also be the same by the potential information users in the process of information need identification, definition and conceptualization. The later (as in the argument in this paper) provides a basis for the former (Wilson's). The difference is that, while that of Wilson is a programmed, conscious, structured, systematic and scientific seeking behavior to filling the gap and solving the information need, the later is a programmed or unprogrammed, unconscious or conscious, structured or unstructured, unsystematic or systematic and unscientific or scientific search behavior to discover the gap or ignorance and define the information need. Thus, the various interactions with the various information systems and sources by the conscious seeking behavior of an information user remains the same for the programmed or unprogrammed, unconscious or conscious, unsystematic or systematic and unscientific or scientific search behavior discovery of gap and information needs. This defines the totality of human information seeking behaviors.

## **Conclusion**

In conclusion, the totality of Human Information Seeking Behavior commences from the unprogrammed, unconscious, unstructured, unsystematic and unscientific search behavior which leads to the discovering of gap or ignorance and information needs, to the consciously planned and mechanized search to fill this need providing solution at the long run to the need discovered.

In addition, the user interactions with the formal and informal information systems and sources which include libraries, on-line services, or information centers agents and other people are subsets of the former and the latter. However, information seeking behavior may also be an un programmed, unconscious, unsystematic and unscientific search behavior.

In conclusion, Information needs can therefore be defined as information gap or ignorance observed or discovered through various unconscious, unplanned and unstructured dynamisms of data and information maneuvering, manipulating, and exchange between a potential information user and other information source or system.

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