Need for Designing Information Literacy Programmes for Rural Dwellers in Developing Countries

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Abstract

This conceptual paper summarises preliminary surveys of two researches on rural dwellers engagement with information conducted in two developing countries - India and Nigeria. In this paper, information literacy was conjectured as a practise that can manifest outside the textual information environment. This is where rural dwellers in developing countries come to play. Hinged on the point that rural people practice information literacy as oral and unstructured social interaction, this paper stresses the need to improve rural dwellers' engagement with information through structured information literacy programmes. Such programmes are to be underpinned on informing, guidance, instructing, or counselling services that will bring rural people to the know of relevant information in their environment, enabling them to effectively access and apply information in their various endeavours. Hence, context-oriented information literacy programmes that suit varying groups of rural people in developing countries was considered prime.

Keywords: Information Literacy, Information Services, Rural dwellers, Developing Countries

Introduction

Developing countries are characterised by poor state of human capital development and are widely known for their poor economic and social structures which affect the human development of their population (World Bank, 2009). According to The World Economic Forum's Human Capital Index, human development, which indisputably leads to individual financial success and better global economy, requires four pillars, namely, education; health and wellness; workforce and employment; and, enabling environment (Zahidi, 2014). The context of education as the leading and encompassing pillar in human capital development is not limited to access, quality and attainment of primary, secondary and tertiary education. Rather, particularly in today's knowledge society, developing a habit of knowledge inquiry in everyday life and in informal education is the bedrock of the

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education required in this 21ˢᵗ century. This is the ultimate goal of information literacy.

In this paper, a rural dweller is one who lives and makes his livelihood in a rural community or village. This is the situation of about 47% of the world's population (United Nations, Department of Economic and Social Affairs, Population Division, 2012; United Nations, 2003), which, however, is not bad if only they are not socially excluded from the global society. In fact, the concern of the World Summit on Information Society as on July 2014 (www.itu.int/wsis/) is how this percentage of the world's population, which is mainly comprised of the Sub-Saharan Africa Region and South Asian countries, can become capable of finding and utilising knowledge-based information in their daily lives. This, itself, is the nitty-gritty of information literacy.

Information Literacy

After its foremost description by Paul Zurkowski in 1974, several definitions have been accorded to information literacy. Foremost definitions were shaped from the educational context - textual and technological platforms of information - and considers information literacy as set of skills required to access and use information effectively. Table 1 highlights some of such foremost definitions. But, given to emerging concerns to justify that information literacy is an indispensable practice for life-long learning (Garner, 2006) and a prerequisite for personal and vocational empowerment (Bundy, 2004; Eiesenberg, Lowe & Spitzer, 2004), recent studies have emerged to recast the concept. Bruce, Somerville, Stoodley and Patridge (2013) have used the concept of

informed learning to argue that information literacy is not only about skills but includes peoples' overall information experience and attitude towards information use. Hepworth and Walton (2013) have a similar view in stating that information behaviour explains information literacy. Kuhlthan (1993) sees information literacy as a learning process that occurs in any setting and among any group of people. Bruce (1999) considers it as thinking and reasoning oriented process that people must manifest in their professional life in order to succeed. Mutch (1997) sees it as the associated processes of knowledge creation and learning process cutting across explicit and tacit contexts. To Lloyd (2007 & 2010), information literacy is body of information practice that also manifest in social context and often require corporeal performances. Others opine that information literacy is all about effective engagement with information in varying spheres of life (Bruce, 1999; Andretta, 2007; Lloyd, 2010; Lupton, 2008). While these conceptual divergences have correspondingly influenced empirical works done on information literacy, there is a consensus that information literacy conception changes in different context (Edward, 2007; Lloyd, 2007).

Information Literacy as Pathway to Societal Development

The importance of information literacy outside the education milieu such as in the context of occupation, civil society, health and wellbeing has been noted. Garner (2006, p.5). In the words of Dr. Patricia Senn Breivik at the Alexandria Proclamation in 2005, information literacy is required beyond formal education as it is "crucial to issues of

Table 1: Textual and technological models of information literacy

The Association of College and Research Libraries (ACRL) of the American Library Association	Information literacy is a set of abilities requiring individuals to recognise when information is needed and have the ability to locate, evaluate and use effectively the needed information (ACRL, 2000).
Society of College, National and University Libraries (SCONUL) UK	Information literacy is a set of seven skills: identifying (recognise information need), scoping (distinguish ways of addressing information gap), planning (construct strategies for locating information), gathering (locate and access information), evaluating (compare and evaluate information), managing (organise, apply and communicate information), and presenting (synthesize and create information) of information (Bent & Stubbings, 2011).
Chattered Institute of Library and Information Practitioners (CILIP) UK	Information literacy involves knowing when and why information is needed, where to find it, and how to evaluate, use and communicate it in an ethical manner. According to CILIP, an information literate person is one who can understand the need for information, the resources available, how to find information, the need to evaluate results, how to work with or exploit results, ethics and responsibility of use, how to communicate or share one's findings, and how to manage the findings (CILIP, 2004).
Australian and New Zealand Information Literacy Institute (ANZIL)	Information literacy is a prerequisite for participative citizenship, for social inclusion, for the creation of new knowledge, for personal, vocational, corporate and organisational empowerment, as well as for learning for life (Bundy, 2004).
The United Nations Educational, Scientific and Cultural Organisation (UNESCO)	Information literacy is the capability of people to recognise their information needs, locate and evaluate the quality of information needed, store and retrieve information, make effective and ethical use of information and apply information to create and communicate knowledge (Catts & Lau, 2008; Information for all Programmes [IFAP], 2008).
International Federation for Library Associations and Institutions (IFLA)	Information literacy is the knowledge and skills necessary to correctly identify information needed to perform a specific task or solve a problem, cost-efficiently search for information, organize or reorganize it, interpret and analyse it once it is found and retrieved (e.g. downloaded), evaluate the accuracy and reliability of the information, including ethically acknowledging the sources from whence it was obtained, communicate and present the results of analysing and interpreting it to others if necessary, and then utilize it for achieving actions and results (Lau, 2006).

economic development, health, citizenship and quality of life…It is part of a continuum of literacies that includes oralcy and is context specific to particular cultures and societies" (Patricia Senn Breivik, Personal Communication, 2005). Hence, one cogent feature of Information Literacy is that it accommodates both formal and informal education, taking into cognizance cultural and social contexts. Apparently, the ability to determine information gap, identify available information sources in the society and interact with the necessary people and systems in order to acquire and use information promptly constitutes information literacy practice. Therefore, in a social environment, information literacy is fundamentally rooted in culture and social contexts of the people involved. It will take the form of social interaction; people serving as information need pointers, sources and guides to using information wisely. Developing a system in rural areas that builds on social interaction to improve rural denizens' access to and use of development information will automatically result in societal development.

Information Literacy and Rural Dwellers

In developing countries, rural dwellers are largely illiterates and thrive in oral information environment. Even in instances where literacy – ability to read and write – is traced, rural dwellers are accustomed to oral culture, depending mainly on oral communication for information against the textual and technological sources of information. Yet, while the importance of information to this category of world's population has been noted in the literature (Diso, 2005; Etebu, 2009; Harande, 2009;

Kamba, 2009; Momodu, 2002; Momodu, 2012; Munyua, 2000; Sturges and Neill, 1998; Ukachi, 2007), the present state of information delivery and services to rural areas in developing countries is very poor (Uzuegbu, 2016). The situation strongly suggests information literacy practice as a remedy. According to Abdulrahman, Ape and Egbe (2019), information is the key to develop a nation for which information literacy is much needed for all the masses in general and the rural masses in particular. Information literacy in a rural setting ideally starts from complete awareness of appropriate information to effective access and use of information. This entails that people involved become fully acquainted with the benefits accruable in the use of given information. This condition is underscored on awareness. The term *awareness* denotes knowledge or perception of a situation or fact. It is the state of being aware of – conscious to recognize, realise, understand and/or appreciate – required information, its availability in the environment where one lives and its suitability to solve information needs. According to Bjorn Merker's neurological report (Bower, 2007), *awareness* in its highest form is self-awareness and results in one's ability to assimilate his perceptions from his environment with his daily goals. This state therefore guides one's behaviour eventually. Thus, as information literacy involves corporeal performance, some behavioural display, consciousness of the type of information needed, awareness of available information and where and how to locate the information is fundamental. While awareness can be regarded as a primary indicator to

information literacy capabilities among rural people, some pilot surveys and preliminary findings of researches focused on rural groups in India and Nigeria are presented as follows to show the status quo and the necessity for information literacy.

Research Findings 1: Evidences from Pilot Survey on Cassava Farmers in Four Villages in Nigeria

To get a bird's eye view on the information literacy competency of rural farmers in Nigeria, awareness - knowing about available information in the community - is the primary indicator. Uzuegbu conducted a pilot survey on cassava farmers from four villages in Abia State of Nigeria. The pilot survey was designed to show the extent to which rural cassava farmers in Nigeria – a Sub-Saharan Africa country - are aware of the cassava farming inputs made available for them by the Nigerian Government. The inputs include: pro-vitamin A cassava variety stems; government's 50% subsidised urea and NPK (Nitrogen, Phosphorus and Potassium) fertilizers; interest-free loan and facilities for rural farmers; and, cassava post-harvest practices such as the production of cassava chips, cassava flour, cloth starch, sweeteners and so on (See Table 2).The inputs are provided for the rural cassava farmers in Nigeria to constantly access and use.

Table 2: cassava farming inputs available for rural cassava farmers in Nigeria

Pro-Vitamin A Cassava Variety Stems

a) The Benefits in planting the stem:
  - It is the latest cassava variety. Planting the stem cuttings assures early (from 6 months) harvest against 10-12 months maturity period for the old varieties. Besides, the variety is rich in vitamin A (plant-sourced beta-carotene) which makes it a cheap and easy antidote for blindness and other vitamin A deficiency diseases among rural dwellers, since cassava meals constitute over 90% of their daily food. In addition, the variety has in-built resistance to plant mosaic diseases, which affect the production of old varieties of cassava.
b) Sourcing the stem cuttings:
  - The stem cuttings are subsidised for rural cassava farmers, up to 50%, if they source it from government's agricultural units such as Agricultural Development Programme (ADP), National Root and Crop Research Institute (NRCRI), etc.
c) Scientifically experimented farming practices associated with the Pro-vitamin A cassava stems include:
  - The cutting size
  - The planting format
  - The right month to plant
  - The month/time to apply fertilizer
  - The time to weed the farm

Government's 50% Subsidised Urea and NPK (Nitrogen, Phosphorus and Potassium) Fertilizers
a) Eligibility: - Farmer must be registered with the Farmers' Database of Nigeria, maintained by the Federal Ministry of Agriculture, Nigeria. The register is updated regularly. - A farmer gets 2/3 bags of fertiliser per farming season. b) Mode of access: - Eligible farmers receive SMS alerts on their phones containing redemption voucher code and address of the dealer shop in the city to visit and redeem the fertilizer.

Interest-free Loan and Facilities for Rural Farmers
a) The financing agencies: - Bank of Agriculture (BOA) Limited, Nigeria. - Microfinance Banks for Communities. - National Directorate of Employment (NDE) b) Eligibility criteria for accessing the loan: - Farmers must belong to a Cooperative Society in order to access the free loans and facilities. - Minimum membership per cooperative is 20 members. c) Amount of loan accessible to farmers: - Farmers can get between 100-300 thousand naira without mortgage - Farmers can get loan of 400 thousand naira and above if they show equal value of landed property. c) The benefits of this input package to rural farmers: - Farmers can purchase cassava stem cuttings - Farmers can purchase fertilizers - Farmers can hire labour - Farmers can cultivate more cassava - Farmers can buy cassava processing technology or facilities such as graters, water depressors, frying machine, etc. - Farmers pay back the loan without interest - Farmers can pay back the loan in instalments within a period of two years. In addition, from time to time farmers can get: - Farmers can get free cassava graters - Farmers can get free water-depressors - Farmers can get free frying machines - Farmers can get free cassava starch dryers, etc.

| **Cassava Post-harvest Practices** |
|---|
| - High Quality Cassava Flour (HQCF)
- Exportable Cassava Chips
- Cassava Cake, Bread, Chin-chin and other bakery products
- Cassava by-products such as Cloth Starch, Sweeteners, Glues for Plywood, etc. |

Using a structured interview schedule constructed to gather information concerning farmers' awareness, source of awareness and use of the afore listed cassava farming inputs, the researchers interviewed a total of 95 cassava farming households in four villages, namely, Umualoko, Umuobu, Umuede and Umuala villages. The four villages fall under the Olokoro Clan in Umuahia South Local Government Area of Abia State, Nigeria. A one-on-one interactive communication method was adopted to interview the farmers which resulted in corresponding feedbacks. While the extent to which the cassava farmers are aware of the inputs is presented in Table 3, Figure 1 summarises farmers' overall awareness status across the four cassava farming inputs.

Table 3: Distribution of farmers' awareness of available cassava farming inputs

Cassava Farming Inputs	Awareness	
	Yes	No
Pro-Vitamin A Cassava Variety Stems	31	64
Government's 50% Subsidised Urea and NPK (Nitrogen, Phosphorus and Potassium) Fertilizers	12	83
Interest-free Loan and Facilities for Rural Farmers	9	86
Cassava Post-harvest Practices	7	88

Fig. 1: Percentage distribution of farmers' overall awareness of the inputs
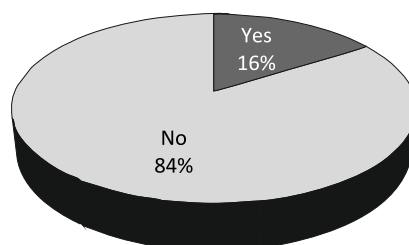
Only 16% of 95 cassava farmers in the four villages surveyed are aware that some farming inputs have been made available by the Nigerian government for them to access and use. 84% are completely not aware. This level of unawareness is recorded despite the presence of various information communication channels and sources available within the four villages such as TV, radio, newspapers, mobile phone network, internet connectivity, education and research institutions, agricultural workshops/ seminars, agricultural extension workers, farm demonstrations, village leadership,

churches, posters, handbills and billboards. Evidently, these information channels and sources have not been effective in infusing the appropriate awareness that will enable the rural cassava farmers to seek, obtain, interpret, understand and use available cassava farming inputs. This is an extant problem that needs a cogent solution.

Research Findings 2: Awareness of Development Programmes in Chuchuyimpang Village, Mokokchung District, Nagaland: A Pilot Survey

In this study, Lendina shows the report of her pilot investigation into Chuchuyimpang villagers' awareness and access to socio-economic development programmes in India which are specifically implemented for the benefit of rural people. Using a structured interview schedule, she conducted a pilot survey in Chuchuyimapang village, under Mokokchung district, Nagaland. A total of 20 households, each regarded as a respondent, were taken up for this pilot survey. The development programmes selected for the study comprised of some important programmes in the Social Welfare Department, Health and Family Welfare Department and Civil Supply Department operating in Nagaland. Table 4 shows the awareness level of the Chuchuyimpang villagers on the development programmes covered in the survey.

Table 4: Awareness of development programmes in Nagaland

Development Programmes	Awareness	
	Yes	No
Indira Gandhi National Old Age Pension Scheme (IGNOAPS)	10	10
National Family Benefit Scheme (NFBS)	0	20
Welfare Programme for the Disabled	10	10
National Programme for Control of Blindness (NPCB)	0	20
National Cancer Control Programme (NCCP)	0	20
Integrated Disease Surveillance Project (IDSP)	0	20
Nagaland State AIDS Control Society (NSACS)	20	0
Monthly Allocation of Food Grain at Subsidized Rates	20	0
Antyodaya Anna Yojana (AAY)	18	02
Annapurna Scheme for Old Age People	20	0

As distributed on Table 4, Chuchuyimpang villagers' awareness on the listed development programmes is poor and largely characterized by ambiguity over where and how to access the centrally sponsored development packages. For Nagaland State AIDS Control Society (NSACS), Monthly Allocation of Food Grain at Subsidized Rates, Antyodaya Anna Yojana and Annapurna Scheme for Old Age People respondents were largely aware of the programmes. But for the Indira Gandhi National Old Age Pension Scheme (IGNOAPS), National Family Benefit Scheme (NFBS), National Programme for Control of Blindness (NPCB), National Cancer Control Programme (NCCP) and Integrated Disease Surveillance Project (IDSP) respondents' awareness level was poor. In both situations, respondents' main sources of information were listed to include friends, relatives and neighbours. Again here, social sources manifested as respondents sources of information. For NSACS, awareness was there from various mass media platforms, hoardings and the concerned Department also gave awareness seminars, etc. This is largely suggesting that effective information use in rural areas is underscored on social interaction between people. Notably, respondents who indicated awareness on some of the programmes also lacked the clarity on the associated process for accessing the benefits from the programmes. As gathered, information regarding these programmes was hardly communicated to the villagers by the concerned Departments. There were no indicators that the mass media such as TV, radio, newspaper, posters and hoardings are facilitating the villagers'

awareness on the programmes, let alone guiding them to access the programmes. This is a problem capable of leaving many prospective beneficiaries out from accessing the programme. Hence, informing services, guidance and counselling is a crucial requirement for the people to access and benefit from the programmes. Thus, majority of the programmes were not known by the Chuchuyimpang villagers. And anecdotally, it was observed that the present situation in Chuchuyimpang village was same in other neighbouring villages. This altogether points to the necessity for information literacy - a locally relevant and context-oriented informing service for the villagers.

Implication of the Findings

Within the scope of awareness, the information literacy status of rural people has been highlighted from three different ongoing researches. Information literacy here is considered as conscious to information environment, awareness of where and how to effectively access and benefit from relevant information available in the community. This is inline with most re-casted concepts of information where the social and corporeal aspects of information use manifest as information literacy practice (Lloyd, 2007,2010). It is also not difficult to associate it with effective engagement with information as argued by other researchers (Bruce, 1999; Andretta, 2007; Lloyd, 2010; Lupton, 2008). Going by these concepts, the information literacy situation of the rural people surveyed is bad. Consequently, the need for designing information literacy programmes for rural dwellers in developing countries is obvious. Information literacy advocates have clearly

recommended that "research is needed-- particularly to document the value of information literacy to social inclusion and its value to economic development" (Garner, 2006, p.6). The importance of research is to identify the most practicable method of deploying information literacy programmes to rural dwellers. Ultimately, the place of verbal communication (oralcy) in a rural-scoped information literacy programme has been noted (Garner, 2006, p.5). The information cum knowledge chain published in Catts and Lau (2008, p.16) highlights the importance of guided informing services in building information literate societies. This therefore explains the need for information literacy programmes for rural dwellers. Yet, in a rural context, such a programme cannot be isolated from information service (http://www.sconul.ac.uk/sites/default/files/documents/ coremodel. pdf) and therefore should be designed and tailored to rural information needs, contextualised around a specific rural people's culture and social life.

Conclusion

This paper has highlighted the need for customised information literacy programmes for rural dwellers in developing countries. The aim is to enhance effective information use among them and inclusive participation in the knowledge society. The significance of verbal communication (oralcy) in rural information literacy approach has been noted, the necessity for providing effective rural information services is unavoidably crucial if rural dwellers must begin to obtain, interpret, understand and use appropriate information. This, therefore, is an urgent need that calls for context-oriented information literacy programmes that suits varying endeavours of rural people in developing countries.

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