Enhancing Research and Knowledge sharing among Nigerian Radiographers through Online Community of Practice

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Abstract

Background: Community of practice (CoP) denotes a group of people in the same craft or profession who share a concern or a passion for what they do. An online community of practice (OCoP), is a CoP that is developed and based on the Internet. The population of Radiographers in Nigeria is increasing, with increased demand for role advancement and research participation. An Online CoP becomes necessary in order to bring Radiographers together to engender research co-operation and knowledge sharing.

Objectives: To assess the importance of Online Community of Practice in enhancing practice and research among Nigerian Radiographers.

Methods: A dynamic membership web portal was created and hosted on the Internet. Fifty (50) Radiographers were purposively selected to beta-test the web portal following its launch. The beta-testers then answered a set of survey questions which bordered on their knowledge and importance of a web-based Community of Practice in enhancing radiography practice and research among Nigerian Radiographers.

Results: A good percentage of the beta testers, 92% admitted to having no previous knowledge of the term OCoP. 96% agreed that the community can improve professional co-operation among Radiographers. 100% agreed that the OCoP can enhance research co-operation and should be adopted for use by Nigerian Radiographers

Conclusion: A dynamic membership web portal built for Nigerian Radiographers was well accepted by beta testers for the purpose of enhancing research and sharing knowledge among Radiographers. It is hoped that this will translate into acceptance by the Radiography community in the Country.

Keywords: Community of Practice, beta-testing, web portal, Radiographers, Research, Practice.

Introduction

Communities of practice are groups of people who share a common concern or passion for something they do and learn how to do it better in the process of regular interaction [1]. The term "community of practice" is relatively new but the phenomenon it refers to is age-old. The concept has provided a useful perspective on knowing and learning. A growing number of people and organizations in various sectors around the world are now focusing on communities of practice as a key to improving their performance [2].

Wenger-Trayner & Wenger-Trayner [1] in nailing the definition and functions of a typical community of practice had this to describe about The PEMPAL Internal Auditors Community of Practice: "A group of internal auditors in the public sector from different countries in Eastern Europe and Central Asia were having their 34th official meeting. For seven years now they had been coming together to hear how others in the region were engaged in internal audit and to create manuals and other publications that they felt were missing from their profession. Only a few of the original members were still part of the group, but the shared work, stories, and artifacts created over time gave their meetings a sense of continuity and purpose. If you were a fly-on-the wall at one of their events you would notice how new members were warmly welcomed into "the family", how many people stepped up to take initiative or share their war stories, and how ambitious core members were to advance the practice of internal audit in the public sector in the region. Evening events, organized by the host country, were always lively – with singing, dancing and a hymn composed and sung by members."

When a community of practice is created and hosted on the Internet, it is termed 'online' community of practice (OCoP). It removes the

burden of physical meetings with its attendant travels across distances and other inconveniences. The advent of the Internet in the 1980s dramatically changed the landscape of learning. Together with Social media, further breakthroughs have been made through innovative uses of networking technolgies to support learning and collaboration. Social networking technologies have offered new and diverse opportunities for educators and professionals around the world to create and engage in online communities of practice that compare favourably with face-to-face communities of practice in increasing communication, collaboration and support among members. This has enabled professionals to gain equitable access to resources that may otherwise not be availabledue to cost constraints or distance [3,4,5,6].

There are three crucial characteristics that distinguish a community of practice (onilne or offline) from other kinds of communities. These characteristics include:

The Domain: A community of practice is not merely a group of friends or a network of connections between people. There should be an identity defined by a shared domain of interest. Membership therefore implies a commitment to the domain, and a shared competence that distinguishes members from other people [1].

The Community: By pursuing their interests in their field, members engage in joint activities and discussions, helping each other and sharing information. They build relationships that enable them to learn from each other. They take care of each other's position. A website in itself is not a community of practice. Having the same function or title is not appropriate for a community of practice if members are not interacting and learning together[1,3].

The Practice: Acommunity of practice is not just a community of interest, for example, people who like certain types of films. The members of a community of practice are practitioners. They develop a shared directory of resources: experiences, stories, tools, ways to solve recurring problems, in short, a shared practice. It takes time and a sustained interaction. A good conversation with a stranger on a plane can provide you with all kinds of interesting information, but that does not in itself constitute a community of practice [1].

In the past few years, with the availability of smart phones, laptop computers and other communication devices, Nigerian Radiographers have keyed into the 'new media' frency in the Country. At one point the "Radiography Nigeria Facebook Group, https://www.facebook.com/groups/radiography.nigeria/ was a place to be for numerous Nigerian Radiographers. The page boasts 728 members as at November 14, 2018 [7]. Currently, focus has shifted to the Whatsapp and Telegram platforms where Radiographers post, read or comment on chat messages according to their interests.

These online communities of Nigerian Radiographers share some characteristics of online community of practice except that the core tenets of shared practice, knowledge sharing, colaboration etc. are not consciously pursued on a daily basis for the benefit of all members of such groups. In these groups, members sometimes are offline for some days, weeks or even months. When they get back online, they either do not have access to previous discussions or find it boring to sift through thousands of messages in order to retrieve ones that are relevant to them. Damage to mobile devices can put an end to important discussions stored in such devices since Whatsapp, for instance is linked to a certain device.

An ideal community of practice should be one that is creaated and hosted on the Internet with a standard Domain name and reliable web hosting. Members of the profession should then sign up and create accounts in a secure platform that will last a lifetime. All data entered into the registration form are stored in a secure database and can be queried and retrieved by the Admin or any other user as permitted for the purpose of research. A discussion forum and Short Messaging Service (SMS) should be linked to the web portal to create dynamism and interactivity, with tools for communication and conferencing.[8,9].

Materials And Methods
A web portal was created and hosted online at https://eddyjay29.wixsite.com/naija-radiographer. The portal included a Home page with instructions on how to navigate through the website, and a link to a membership registration form for Radiographers to sign up.

Fifty (50) Radiographers were purposively selected to beta-test the web portal following its launch. The beta-testers then answered a set of

survey questions which bordered on their knowledge and importance of a web-based Community of Practice in enhancing radiography practice and research among Nigerian Radiographers.

Data was analyzed using Microsoft Excel 2013 and results presented using tables and charts.
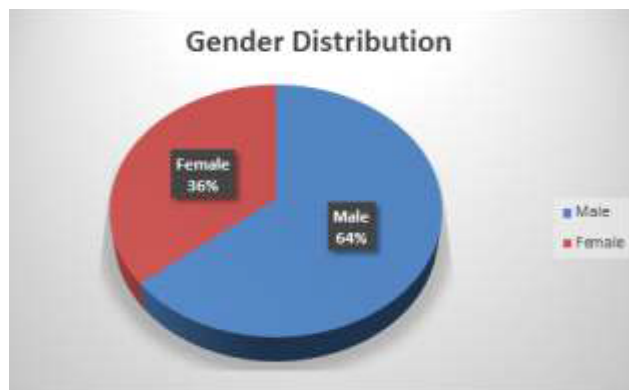
Results

Figure 1: Distribution of respondents by Gender

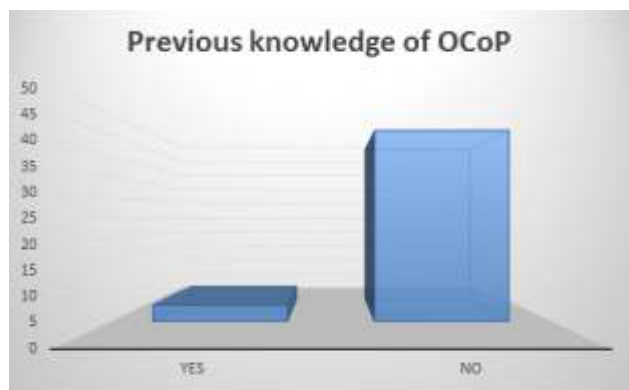There were 32 male (64%) respondents and 18 females (36%).

Figure 2: Radiographers' previous knowledge of OCoP

Majority of Radiographers had no previous knowledge of the phrase 'Online Community of Practice' even though they have been applying the concept via social media groups and local socio-religious groups.
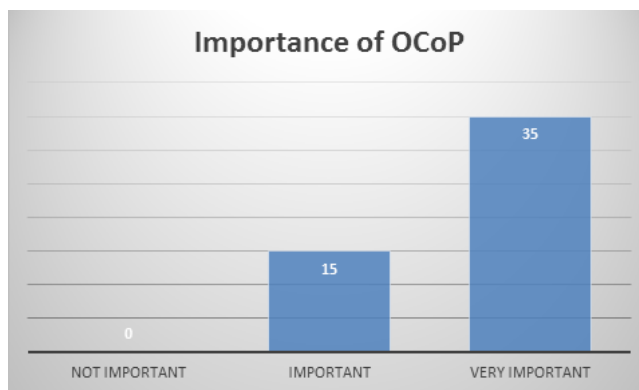

Figure 3: Radiographers' rating of the importance of OCoP in engendering development of Radiography practice and research among Nigerian Radiographers.

Table 1: Radiographers level of agreement with suggested importance and usefulness of OCoP for Nigerian Radiographers

Suggested Importance	A	SA	NI	D	SD
An online community for all Nigerian Radiographers will improve research collaboration among Radiographers	10	40	0	0	0
An online community for all Nigerian Radiographers will improve professionalism and mentoring in Radiography practice	13	35	2	0	0
An online community for all Nigerian Radiographers will ease communication between professionals in different parts of the Country	7	43	0	0	0
Having a constantly updated dataset of all Nigerian Radiographers in an online database will be useful administratively for the RRBN, ARN, MISON and other organizations having business to do with the profession in Nigeria	15	34	1	0	0
Running CPD courses online by RRBN as part of the online community of practice can attract more Radiographers to attend and reduce cost	5	45	0	0	0
I will like to see this idea implemented for the benefit of Nigerian Radiographers	21	29	0	0	0

A = Agree, SA = Strongly Agree, NI = No Idea, D = Disagree, SD = Strongly Disagree

Majority of Radiographers who responded to the

survey agreed strongly with the suggested benefits of building an onlline community of practice for Nigerian Radiographers.

Discussion

There is not much written in leterature about Online Community of Practice in the field of Radiography and Imaging. Most researches examining this concept are in the field of Education and Humanities [5, 10]. This may inform why most Radiographers are not aware of the phrase. With a brief introduction to the concept and benefits of OCoP presented on the website, including links to futher reading, the respondents became aware of the need and importance of such community to Nigerian Radiographers. This is indicated by the responses that were received in the mini survey.

An online community of practice integrated with a comprehensive database of participants can be a good source of data collection for research purposes. Sources of data include at first the personal details, educational details, employment details etc. provided by members during sign-up and registration on the portal. On another hand, members happen to live and practice their profession in different parts of the country and would easily act as respondents to research surveys and questionnaires from other members who are embarking on researchprojects. Such data will represent the views of the entire population and makes it easier for generalization of findings.

In the course of this study, the researchers were able to collect data from the Radiographers who beta-tested the web portal and the data included, but not limeted to their Demographics, educational history, areas of specialization, employment history/details, and research exploits. If another researcher or group require these detals from the same Radiographers, they do not need to contact them again and issue new sets of surveys, they only need to go to this online database and retrieve the data. The Radiographers can equally go back to their online accounts and update their information; they can add new qualifications, new specializations or update their employment information. This means there should always be adequate information in supply for any Radiographer or organization seeking to use the online community for research purposes. Moule [11] and Moule [12]concluded in a study

involving Nursing, Radiography and Radiotherapy students that the students while learning online were able to demonstrate the development of mutual engagement, joint enterprise and shared repertoire which are all elements of community of practice. Respondents in the survey agreed no less, that an online community of practice for Nigerian Radiographers will improve intra-professional collaboration, professional mentoring and knowledge sharing. Sharing of information will be easier across the length and breath of the country. A younger or less experienced Radiographer, a student Radiographer or newly qualified ones will always find an experienced Radiographer in his or specialty of interest, to ask qustions, seek mentoring and collaborate in research.

When integrated with an e-learning platform, the Nigerian Institute of Radiographers can run modules of her Continuous Professional Development courses as part of the Online Community of Practice. Courses may be run as full online modules or as Blended Learning modules. Education and learning is one of the major features of an online community of practice [12,13].

With a continuosly updated online database of Nigerian Radiographers, the Radiographers Registration Board of Nigeria (RRBN), and the Association of Radiographers of Nigeria (ARN) can solve to a large extent the problem of maintaining an up-to-date register of practisioners in the country and Nigerian Radiographers in the Diaspora. Thus participants in this study affirmed that an OCoP will ease the administrative burdens of these organizations.

Conclusion

This study examined the concept of Online Community of Practice and how it might benefit the Nigerian Radiography community. Participants in the study, who beta-tested a limited-functioning Online Community of Practice opined that the concept is worth its salt and are hopeful that it will be adopted by appropriate quarters for implementation.

Limitations

Due to lack of funding, the Online commuity built to test-run this concept and collect data for this study was in its most basic form, built to fit the budget. Most features that would guarantee interactivity of the online community were absent and should be available in an ideal situation.

References

1. Wenger-Trayner, Etienne and Wenger-Trayner, Beverly. Introduction to communities of practice. *Wenger-Trayner.* [Online] 2015. [Cited: November 1, 2018.] http://wenger-trayner.com/introduction-to-communities-of-practice/.

2. Wenger, Etienne, McDermott, Richard and Snyder, William.*Cultivating Community of Practice: a guide to managing knowledge .* Boston : Harvard Business School Press, 2002.

3. Booth, Sharon Elizabeth.*Cultivating Knowledge sharing and trust in online communities for Educators.* Journal of Educational Computing Research,2012,1-31.

4. Babinski, L. M., Jones, B. D. and DeWert, M. H.*The roles of facilitators and peers in an online support community for first yeaar teachers.* Journal of Educational & Psychological Consultation,2001,151-169.

5. Chen,Y., Chen, N. S. and Tsai, C. C.*The use of online synchronous discussion for web-based professional development for teachers.* Computers & Education,2009,1155-1166.

6. Loucks-Horsley, S., Stiles, K. E., Mundry. S., Love, N., &Hewson, P. W.*Designing professional development for teachers of science and mathematics.* Thousand Oaks: Corwin Press,2010.

7. Radiography Nigeria. Radiography Nigeria. *Radiography Nigeria.* [Online] April 2, 2012. [Cited: November 14, 2018.] https://www.facebook.com/groups/radiography.nigeria/.

8. Corso, Mariano and Giacobbe, Andrea. *Building Communities of Practice that work: a case study based research.* Milan, Italy : s.n., 2014.

9. Bowes, Janine.*Building Online Communities for Professional Networks.* s.l. : Education AU Limited,2002.

10. Brandtzaeg, P. B., Folstad, A., Obrist, M., Geerts, D., & Berg, R.*Innovation in Online Communities - Towards Community-Centric Design.* LNICST,2010. 40: 50-57.

11. Moule, Pam.*Developing the Communities of Practice, Framework for Online Learning.* The Electronic Journal of e-learning, 2006, 133-140.

12. Moule, Pam.*E-learning for healthcare students: developing the communities of practice framework.* Journal of Advanced Nursing,2006,370-380.

13. Zhang, Wei and Watts, Stephanie.*Knowledge Adoption in Online Communities of Practice.* Boston: ICIS,2003.