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Library Publishing: Exploring the Potential of the Kwame Nkrumah University of Science and Technology (KNUST) Library

Lucy Afeafa Ry-Kottoh Ph.D
Kwame Nkrumah University of Science and Technology, afeafarykottoh@gmail.com

Esther White Ph.D
Kwame Nkrumah University of Science and Technology, ebtpub@yahoo.com

Samuel Smith Esseh Ph.D
Kwame Nkrumah University of Science and Technology, skesseh@gmail.com

LIBRARY PUBLISHING: EXPLORING THE POTENTIAL OF THE KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KNUST) LIBRARY

Lucy Afeafa Ry-Kottoh
Department of Publishing Studies, KNUST, Kumasi, Ghana
afeafarykottoh@gmail.com[1]
ORCID ID: https://orcid.org/0000-0002-6066-6862

Esther White
College of Art and Built Environment Library,
KNUST, Kumasi, Ghana
Email: ebtpub@yahoo.com
ORCID ID: https://orcid.org/000-0002-6339-4604

Samuel Smith Esseh
Department of Publishing Studies, KNUST, Kumasi, Ghana
Email: skesseh@gmail.com
ORCID ID: https://orcid.org/0000-0002-9842-376X

Abstract

Library publishing has become an important and alternative function of academic and research libraries in their quest to serve the scholarly community. Adopting a qualitative approach, through interviews and a review of the content of the KNUST Library's Strategic Plan and website, this paper explores the potential of the Kwame Nkrumah University of Science and Technology (KNUST) Library to engage fully in library publishing. The paper also examines the policy, infrastructure, and assesses the human (skills and capacity of staff) and technical resources at the KNUST Library to determine its capacity to engage in full-scale library publishing. We found that although the KNUST Library engages in library publishing by disseminating and curating scholarship within the university community through its institutional repository (KNUSTSpace); it is yet to explore other aspects of library publishing that entail the creation and validation of the scholarship it disseminates and curates. To fully fulfil its mandate, we recommend a survey to first solicit views from the faculty at KNUST to determine the scope and type of scholarly publishing initiative to engage in. Given the current state of the library, we

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[1] Correspondent author

suggest retraining and a collaboration with the Department of Publishing Studies and other academic and research libraries with expertise to engage in collaborative library publishing.

Keywords: *Library publishing, exploring, KNUST, library, scholarly communication*

INTRODUCTION

University libraries play an important role in scholarly publishing. They offer support to review literature, evaluate journals and recently open access (OA) publishing services (Bruxvoort and Fruin, 2014) and library publishing. Library publishing, comprising 'the set of activities led by academic and research libraries and library consortia to support the creation, dissemination, and curation of scholarly, creative, and or educational works' (Library Publishing Coalition, 2021) began several years ago and has become a growing area of interest in academic libraries with an increasingly visible subfield of scholarly publishing (Schlosser, 2018). As influential intermediaries in the scholarly communication process (Ocran and Afful-Arthur, 2021), libraries and librarians have always played a pivotal role in the creation, preservation and dissemination of knowledge (Boufarss and Harviainen, 2021).

The growth in library publishing has been motivated by the increase in journal prices, demand for more freely available information, commercial exploitation of the research life cycle and the fact that the internet has become the predominant means of information dissemination (Schlosser, 2018; Stapleton, 2019). However, library publishing is mostly driven by demand from the parent university for digital publishing platforms to support electronic journals, technical reports, conference proceedings and database-driven websites (Skinner and Speer, 2015) and also to reflect local conditions (Stapleton, 2019). Library publishing helps the academy regain ownership of the process and products of research (Stapleton, 2019) as well as meet local needs related to the creation and dissemination of scholarship (IFLA, 2019).

Library publishing in academic and research libraries in Ghana

A survey of the academic library websites of universities in Ghana revealed that although library publishing is a critical function of the academic library now and in the future, some academic libraries in Ghana have institutional repositories but are yet to engage fully in the all-important

function of scholarly/library publishing. Library publishing appears to be emerging in Ghana, as shown by the number of academic libraries that are engaged in basic library publishing through managing institutional repositories. Out of the fifty members of the Consortium of Academic and Research Libraries in Ghana (CARLIGH), only eight have fully functional institutional repositories: Kwame Nkrumah University of Science and Technology Library, University of Ghana Library, University of Cape Coast Library, University of Development Studies Library, Ashesi University Library, the University of Education in Winneba Library, Pentecost University Library, and Christian Services University Library.

Context

This article discusses the potential of library publishing in academic libraries in Ghana with the Kwame Nkrumah University of Science and Technology (KNUST) Library in focus. This study has become necessary because of the publishing practices of researchers and faculty members in Ghana, as some researchers in public universities are under pressure to increase their research productivity in response to tenure and promotion criteria. According to Atiso, Kammer, and Bossaller (2019), this has resulted in articles being published in questionable journals. Meanwhile, Mills, Branford, Inouye, Robinson, and Kingori (2021) identified global publishing inequalities and disclosed how fear of "fake" journals is cultivated amongst African academics. Therefore, Mills et al., (2021) suggested the solution is to strengthen African academic publishing capacity to counter global publishing inequalities.

Although the KNUST Library's mission is "to provide seamless access to high-quality scholarly resources, in various formats, using innovative and modern methods of information delivery to deliver excellent library services, both face-to-face and virtual, to support academic activities of staff and students across the University" (The KNUST Library Strategic Plan, 2017, p 7), there is no specific mention of library publishing as part of its mandate. However, it may be implied that 'using innovative and modern methods of information delivery' can be extended to include library publishing.

Lamptey (2010) reports that computerisation of the resources within the KNUST Library system formally began in June 2009. This established the foundation for creating the KNUSTSpace, the first institutional repository in Ghana (Corletey, 2011) that uses DSpace, a free to install, customizable open-source digital repository for academic, non-profit, and

commercial organisations building open digital repositories (DSpace, 2021). KNUSTSpace holds 11,295 theses, research articles, speeches, back issues of the university's journal (Journal of Science and Technology) and conference proceedings, with an average of 300 views daily (KNUST Facts and Figures, 2019). KNUSTspace has documented a formal long-term preservation policy as part of its IR Policy (http://ir.knust.edu.gh/). However, Martin-Yeboah, Alemna, and Adjei (2018) observed that other materials emanating from the university, such as research data sets, audio-visual materials, PowerPoint presentations, course outlines, and lecture notes have not been included in the repository. This calls for an exploration into the effective utilisation of the KNUSTSpace for the publications emanating from researchers and lecturers.

In terms of digital infrastructure to support digital/online publishing of journals, monographs, databases and other scholarly publications, the university has a total bandwidth of 6.6 Gigabyte (6.6GB) accessed over local area network (LAN) with speeds of 1GB providing connectivity to the staff and student population of about 90,000. The LAN connects over 5,000 devices, including five (5) 200-seater computer labs and the WLAN/Wi-Fi averagely connects 20,000 devices. The data centre runs a hybrid server infrastructure to support administrative and academic software applications. Some software applications include Student Academic Information (accessed by over 80,000 students during semester registration), Learning Management System, Open Access Institutional Repository (accessed internationally), Online Application System, Open Journal System amongst others. The data centre houses a cluster of servers used for distributed computing like the journal management software: Open Journal System (OJS), an instance setup for a journal at the Faculty of Law and PURE Research Information Management System that facilitates the running of various analytics on research publication data.

The KNUST Library has a staff strength of 120 professionals and para-professional librarians (KNUST Facts and Figures, 2019). Fourteen professional librarians classified as Senior Members hold Master of Arts, Master of Philosophy and PhD qualifications in Library or Information Science as of June 2020.

LITERATURE REVIEW

The mandate of academic libraries is to support students, faculty and the entire parent institution in their learning, teaching and research through the collection and dissemination of both local

and international content (Abban, 2019; Cobblah et al., 2021; Fagan, Ostermiller, Price, and Sapp, 2020; Ocran and Afful-Arthur, 2021). This means academic libraries support the research and education agenda of the academic communities they serve, and library publishing furthers this mission by making diverse knowledge freely accessible to the benefit of the academic community (Schlosser, 2018) and the public at large (Stapleton, 2019). Stone (2016) had earlier shown that library publishing is a growing worldwide movement, especially in this era of digital technology. Therefore, academic libraries can provide unique perspectives in library publishing.

Academic library publishing services

Discussions in the literature reveal that library publishing began as an alternative model of scholarly communication when the Internet became a predominant means of information dissemination in the 1990s. In their quest to better serve the scholarly communities, academic libraries in the early years of the web moved their collections and services online (Xia, 2009; Lefevre and Huwe, 2013) and became vital players in digital publishing in recent years (Lefevre and Huwe, 2013; Bonn and Furlough, 2015).

The need for academic libraries to adopt digital technology in making public scholarly records from their academic communities is reiterated by Courant and Jones (2015) who indicated that universities are recognising their mission to make their scholarly records public thus strengthening academic libraries to further improve this mandate. Besides digital technology and network communication, dissatisfaction with cost and constraints from commercial publishers have also been identified as other reasons that led a lot of libraries to passionately seek other means of scholarly publishing (Bonn and Furlough, 2015; Bains, 2017).

Materials published through library publishing

Decisions on what to publish and the processes involved depend on the needs of the audiences to be reached and the capacity of staff. Materials that can be published by academic libraries include journals, monographs, textbooks and open educational resources, datasets, complex visualisations, audio/video materials (Schlosser, 2018). Others are 3-D models, data sets, computer code, oral histories, and audio-visual material (Stapleton, 2019). Potential partnership with scholarly societies and organisations outside the parent university of the library (Stapleton, 2019) has been identified as a way of getting scholarly materials published. Such materials can be archives and current documents containing conference proceedings, research from young

scholars, as well as hosting of their journals, which mostly had low usage and declining submissions.

Technological resources for library publishing

Academic libraries entering publishing may do so within an institutional repository or employ a separate publishing platform (Stapleton, 2019). Tools for managing library publishing include Berkeley Electronic Press (Bepress) application Digital Commons (Xia, 2009) and Open Journal Systems (OJS) (Xia, 2009; Stapleton, 2019). Schlosser (2018) reported that Elsevier, a commercial publisher, had bought Bepress's Digital Commons by mid-2017. McCormick (2015) is of the view that small libraries involved with library publishing mostly use Bepress's Digital Commons, a commercially hosted institutional repository and publishing platform. This is because of the lack of staff and technical infrastructure to install and maintain publishing platforms. However, OJS appears more in larger institutions with bigger libraries. She reported a survey on library publishing services that showed more libraries using OJS (57%), than DSpace (36%) and Digital Commons (25%).

Bepress's Digital Commons

Presentations by Royster, Weaver, Billings, Fitzsimmons and Fishel (2018) at a library publishing forum in Minneapolis in 2018 described the Bepress Digital Commons as having a suite of products that offered affordable, robust, and feature-rich solutions. Weaver emphasised the service and support his library received from Bepress, at no additional cost, since there was no in-library IT Support at his university library where he worked as the scholarly communication librarian. He hoped such services would not cease after the purchase of Bepress by Elsevier. Billings described Bepress as a one-stop shopping and solution for many applications, such as the ETD programme with Graduate School, open access journals and conferences and responsive staff from Bepress. An example was the ability to use both the journal functionality and conferencing functionality at the same time. However, listed disadvantages included a scripted template system that is difficult to customise and the inability to use industry standards. Allison et al. (2019) commended Bepress as having a search engine optimisation that helped users in retrieving information more readily.

Open Journal System

Open Journal Systems (OJS) is software first released by Public Knowledge Project (PKP) at Simon Fraser University (Bonn and Furlough, 2015) in Canada. It is identified as allowing customizable management of all stages of the editorial workflow for publishing (Deliyannides and Gabler, 2013) as well as the ability to download full-text documents (Stapleton, 2019). Other tools identified earlier in OJS include:

> support for both online interfaces and content in many languages, persistent URLs, RSS feeds, tools for bookmarking and sharing articles through social networking sites, full-text searching, compliance with the Open Archives Initiative Protocol for Metadata Harvesting, and online usage statistics (Deliyannides and Gabler, 2013).

Human resource capacity of library staff for library publishing

Library publishing is one of the traditional strengths of academic librarians (Skinner and Speer, 2015; Schlosser, 2018), but there are additional skill sets that must be mastered to provide effective publishing services to their academic communities because no graduate-level training programme adequately prepares librarians for the full range of issues involved in library publishing. Lefevre and Huwe (2013) and Stapleton (2019) suggested that to maintain high-quality library publishing, there is a critical need for dedicated and experienced library personnel with enhanced skills and competencies in digital publishing and the need for a 'domain specialist'. Some avenues for training librarians, according to Skinner et al. (2015) are academic degree programmes, professional development workshops, online or distance programs and internship programmes with an emphasis on hands-on and interactive learning and the ability to respond to current needs.

Challenges of library publishing

Inadequate funding, (Adjei, Mensah, and Amoaful, 2019; Dadzie and van der Walt, 2015), lack of adequate and modern equipment, lack of trained personnel and lack of cooperation from faculty members (Dzandza, 2020) have been identified as the major challenges of library projects in Ghana. Also, publishing across disciplines such as scientific, technical and medical fields in academia requires a unique set of qualifications and presents a challenge for the 'scalability and sustainability of publishing education programmes' (Skinner et al., 2014, p. 4) Library

publishing also requires substantial investment and commitment by libraries and faculty who are, unfortunately, busy and may be impatient with their library experiments (Xia, 2009). McCormick (2015) asserts that library publishers have less clarity about what it may cost to sustain their publishing services. Researchers have argued that the changing nature of librarianship requires a redesign of courses, curricula or academic programmes for librarians to improve their knowledge in digital technologies to become competent digital librarians to build digital libraries/collections (Youngok and Rasmussen, 2006). This paper, therefore, explores the potential of academic libraries in Ghana, specifically Kwame Nkrumah University of Science and Technology (KNUST) Library, to engage fully in library publishing. The paper also examines the policy, infrastructure, as well as assesses the human (skills and capacity of staff) and technical resources at KNUST Library to determine its capacity to engage fully in library publishing.

METHODOLOGY

We adopted a qualitative approach and gathered data through interviews with the two Deputy Librarians, (representing the University Librarian of KNUST), Current and Former Heads of Department for the Academic Engagement and Support Unit (formally the Electronic Resources Department). The respondents were selected purposively because of their positions, roles, experiences, and affiliations with the institution of focus.

The KNUST Library website, the KNUST Library Strategic Plan 2017 and KNUST Library Strategic Plan 2005 (Plan 2K14) were also analysed to ascertain if *library publishing* featured in the short-term or long-term plans of the KNUST Library system. The interviews were transcribed and analysed using a deductive approach with a predetermined framework and presented in narratives. We essentially imposed our structure on the data to guide the analysis (Williams, Bower and Newton, 2004) so we could find out the level of infrastructure to support library publishing, assess the human (skills and capacity of staff) and technical resources to explore the library's potential for a full-fledged library publishing programme/initiative.

FINDINGS AND DISCUSSION

Infrastructure to support library publishing

The KNUST Library carries out 'a form of' library publishing through its online open access institutional repository (KNUSTSpace) that disseminates and curates the scholarship from faculty and postgraduate students of KNUST but is not involved in the content creation and validation. This resonates with Stapleton's (2019) assertion that institutional repositories are a platform for academic libraries entering library publishing. The KNUSTSpace comprises theses, articles and datasets in digital form. Faculty members submit their published articles, datasets and other forms of digital content directly to the library to be uploaded onto the institutional repository while those of postgraduate students are received from the School of Graduate Studies. The Quality Assurance and Planning Unit (QAPU) at KNUST also publishes a print directory of research carried out by the university community.

When asked about KNUST Library's infrastructural capacity to host, disseminate, and curate digital content from the university and outside the university (the platforms required for scholarly publishing), the respondents were uncertain about the library's infrastructural capacity. One respondent, however, stated that the current infrastructure that allows the library to host the KNUSTSpace was adequate and can be harnessed for library publishing if they fully utilise all its features and plugins. Also, with the university's journal, Journal of Science and Technology (JUST) using the OJS the library can benefit from the infrastructure already in place. Some responses from interviewees were:

I doubt if KNUST Library has the infrastructure for scholarly publishing (Respondent A)

Currently, I can't really say there is something concerning publishing platforms, but we have the university 'servers' that can help with any internet related service (Respondent C)

The university journal uses the OJS (Respondent D)

KNUST uses DSpace that is used to curate, host and disseminate digital content, but the content is limited to those from KNUST as an institution, but I believe we can leverage it to take care of other institutions (Respondent B)

The OJS, Bepress and other cloud-based open-source platforms can serve as alternatives or supplementary systems to augment the capacity of KNUSTSpace, should the library decide to expand its library publishing initiatives. Using open-source platforms, such as Open Journal

Systems (OJS) and Bepress were identified as potential platforms the library can use to expand its current library publishing initiative. This position agrees with the literature that associates managing library publishing with Bepress and OJS (Xia, 2009, p.372; Stapleton, 2019, p.7). Respondents in this research also mentioned the Institutional repository with the explanation that the KNUST Library system could leverage upon the KNUSTSpace to take care of scholarship from other institutions. However, OJS appears more in larger institutions with extensive libraries, as reported in a survey by McCormick (2015) that showed more libraries using OJS (57%), DSpace (36%) and Digital Commons (25%).

Human resource within the KNUST Library system for library publishing

The respondents stated the need for further training to gain additional skills in digital scholarly publishing. In response to the question, "Does the library staff at KNUST have skills to undertake library publishing?" Some responses were:

Though publishing is consistent with librarians' curatorial roles, additional skills are needed to provide robust publishing services in the academic community (Respondent B)

Staff may need more training in metadata issues, assigning DOIs and the publishing cycle. Submission, reviews, copyright, article processing charges etc. (Respondent D).

Capacity building through continuing professional development (CPD) to equip staff with the skill set needed for scholarly publishing – acquisition and editorial skills, software development skills, coding, design, layout, typesetting, mark-up and metadata extraction (Respondent B)

Also, 'regular in-service training for staff who are already on the field' (Respondent D) will be helpful as well as 'diversifying the areas of specialisation so staff who intend to further their studies can be encouraged to read publishing studies instead of all of them pursuing courses in only library studies' (Respondent A)

Other options include:

Self-tutoring through online courses/programmes like COURSERA, Webinars, MOCCS platform (Respondent D) and/or incorporating library publishing into the courses/programmes in the Library School or through a collaboration with the Department of Publishing Studies to train librarians in aspects of library publishing (Respondent C)

Although library publishing is a function of academic librarians, additional skill sets are required to provide effective publishing services to their academic communities. The responses above

show the current capacity of the staff of the KNUST Library is inadequate to engage in full-scale library publishing. Staff will, therefore, require continuous professional development (CPD). This can include introducing additional courses at the library school, diversifying areas of specialisation by library staff, and self-training through free online courses, which were outlined as the ways staff can build capacity to fully and effectively engage in library publishing. These resonate with earlier research (Skinner and Speer, 2015; Skinner, Lippincott, Speer and Walters, 2015; Schlosser, 2018).

Skills for library publishing

The dynamic nature of librarianship requires that course content, at all levels, reflect the changes in the academy and practice, so librarians can continually develop the skill set required in digital technologies. Training can include academic degree programmes, professional development workshops, online or distance programs and internship programmes with an emphasis on hands-on and interactive learning and the ability to respond to current needs because of the different areas of specialisation as in scientific, technical and medical publications. Respondents suggested that copyright and intellectual property issues, aspects of journalism, ICT skills, bibliometrics and digital publishing can be incorporated in the curriculum or programmes in library school so librarians can successfully engage in digital publishing:

… as the training provided at the Library School in Ghana does not provide adequate skills for the full range of the theoretical, practical and organisational skills involved in professional publishing (Respondent B).

I wish that even some aspects of journalism can be incorporated into library studies because some ethics of writing emanate from such programmes. The Library School should review their curriculum to venture into library publishing. This is because the library studies programme has moved from traditional aspects such as 'watching of books' to information dissemination (Respondent A)

What is taught at the library school sometimes differs from what we meet at work. For instance, a course like bibliometrics needs to be taught. It will help students to know a lot about research and scholarly publishing. Because we are in a technology era and librarians need to understand a lot of things in digital research, publishing landscape, etc. (Respondent D).

Programmes or subjects that can help train librarians to take up roles such as editors or reviewers should be introduced at the library school. Librarians should not only be trained to supervise books. This will help librarians to see themselves as part of the publishing process after graduation (Respondent C).

These responses indicate institutions that teach courses in library studies and information sciences must review their content to reflect the current trends, so the skills librarians and information specialists gain in training will make them relevant in the ever-changing library ecosystem.

Library publishing-related subjects taught in library school

The responses indicating that library publishing is not taught at the library school prompted this study to ascertain the presence of library publishing-related courses in the subjects that are taught at the Department of Information Studies, University of Ghana. The Handbook for Graduate Studies Vol. 2 (https://sgs.ug.edu.gh/sites/sgs.ug.edu.gh/files/masters_hum_hb.pdf) and The Handbook for Bachelors' Degree course descriptions for programmes in the humanities, University of Ghana (2017) were analysed. There was not a mention of library publishing in the courses; however, information technology-related courses that can help with ICT issues such as Computer Applications in Information Systems, Database Management: Principles and Applications are taught at the postgraduate level and Information Storage and Retrieval, Preservation of Information Resources and Automated Information Retrieval at the undergraduate level. This revelation reiterates the need for review and updates in the courses at the library school to reflect every aspect of the information life-cycle.

KNUST Library's preparedness/capacity to fully engage in library publishing

Discussions on library publishing within KNUST Library System

To ascertain the readiness of the KNUST library to venture into library publishing, the KNUST Library website and The KNUST Library Strategic plan (2017) were analysed. With no mention of library publishing as part of its current and future plans, respondents were asked whether there had been discussions on library publishing within the KNUST Library system: whether at a meeting or in any document. There were mixed responses, as some respondents were uncertain if library publishing had been discussed within the KNUST Library system.

Not that I am aware of. There was an issue of publishing a quarterly newsletter basically to showcase the research standing of KNUST based on statistics from SCOPUS and SCIVAL. But regarding scholarly publishing, I don't think there've been any discussions (Respondent B)

Not to the best of my knowledge (Respondent A)

Not too sure. Although there had been discussions on acquiring Digital Commons (owned by Elsevier) to replace DSpace to host the University's journal. Although DSpace is an archive and not a publishing platform, it is still used to disseminate scholarship from the university (Respondent C)

Yes. There have been discussions regarding the university's journal and its future (Respondent D)

With only Respondent D stating that there had been discussions on library publishing regarding the future of the Journal of Science and Technology (JUST) KNUST's journal, it suggests that the idea of library publishing had not been thoroughly considered and prepared for, and communicated to the internal stakeholders of the library. The need for academic libraries to make public scholarly records from their academic communities is mentioned by Courant and Jones (2015) who stated that universities are recognising their mission to make their scholarly records public, thus strengthening academic libraries to further improve this mandate. It is, therefore, important for the KNUST Library to expand its scholarly publishing activities beyond KNUSTSpace and venture into library publishing to increase the visibility of scholarship from KNUST and other academic and research institutions in Africa.

Human Resources

Increasing staff strength, updating and gaining new skills to support scholarly publishing is crucial to engaging in library publishing as it contributes to the quality and credibility of the scholarly publication. This view agrees with Lefevre and Huwe (2013) and Stapleton (2019) who suggested that to maintain high-quality library publishing, there is a critical need for dedicated and experienced library personnel with enhanced skills and competencies in digital publishing. Respondent C was concerned about how library staff could take on additional responsibilities of digital publishing besides their core library duties. He, therefore, suggested recruiting new staff to be solely responsible for publishing activities.

Collaboration

When respondents were asked if the library has contacted any department, faculty or college about setting up a journal in their discipline to disseminate and curate their scholarship, there were mixed reactions:

Respondents B and D revealed that the library had contacted no department to discuss setting up a journal. Although Respondent A acknowledged that collaboration will be very helpful. He had this to say:

"Publishing studies Department at KNUST can support with training of staff… We would need more staff to augment staff here at KNUST".

Respondent D, however, indicated that it is only the Department of Publishing Studies that had been contacted to explore the possibility of introducing courses in library studies or library school programmes at KNUST.

Identifying research needs for content creation

Every publishing activity begins with content creation; the library must therefore be involved in or support content creation and its validation or verification to engage in full-scale library publishing or any form of scholarly publishing. Publishing initiatives are also targeted at meeting specific needs. When asked "Given the library's current capacity, what kinds of digital scholarly content can the library publish?" respondents stated that anything digital or anything that can be archived can be published. They outlined scholarly works from faculty which include reviews, working papers; theses and dissertations from students; datasets and university publications.

KNUST Library can begin with exploring the real needs of the faculty and students of KNUST, to determine needs and preferences that will inform the scope and kind of scholarly publication or library publishing to engage in: journals, monographs, textbooks and open educational resources, datasets, complex visualisations, 3-D models, computer codes, oral histories, and audio-visual materials (Schlosser, 2018; Stapleton, 2019). To assess these needs, respondents suggested a survey, as well as initiating the publishing service before identifying potential users. Their responses were:

A quick survey of academics in the university to know their needs. What they want. Whether they have confidence in the library to handle a publishing platform. Whether they have training needs. Their training needs should also be surveyed (Respondent D)

We must begin by setting up a publishing services unit before the potential users can be identified. Even if it is a section in the library, it should be started (Respondent A)

For instance, users may want to know how to create accounts, submission processes, peer-review processes, checking updates on submission and other publishing processes so a questionnaire (to

be distributed online) could be designed with all the information and sent to potential users (all senior members) (Respondent C)

Funding

The sustainability of publishing initiatives is crucial to their success. Funding publishing projects and the patronage of the publications are important to sustainability. Funds are needed for every project that is carried out by an academic library. The publishing model (open access, subscription-based or pay-to-view) the library chooses will influence its funding options and decision. Funding has been identified as a major challenge for library projects in Ghana (Adjei, Mensah, and Amoaful, 2019; Dadzie and van der Walt, 2015). Given that currently there are no specific plans for library publishing in the KNUST Library's strategic plan, respondents identified potential sources of funding as article processing charges (APC) in open access, charges for subscription and pay-to-view, library user fees and financial support from university management. To support institutional funding, respondents stated that:

As an institutional project, funding should come from the parent institution and be augmented with a levy of senior members based on the same principle of how JUST is funded (Respondent C).

The library could decide to use an amount from the library user fee to start scholarly publishing services. An amount could be added to the library user fee paid by students for such a service (Respondent A)

To determine the demand for scholarly communication, respondents suggest adopting a software, platform or system that can determine the needs and demand. Three respondents indicated that every software for library publishing services has in-built systems that can help identify users' location, the subjects they are interested in, and other important information normally termed as usage statistics. Also, Respondent B identified a well-designed website as a tool to create an awareness of editorial issues and journal demands. In his view, if readers know what is expected of them, they will also make their demands known. Feedback from content providers or those who submit their manuscripts was also identified by Respondent C. This will help to know their demands. Respondents were of the view that faculty can contribute content to the journal that will be created, and be assured of the journal's credibility, unnecessary delays and articles published will count towards their promotion. Faculty and librarians can also serve as reviewers,

editors and provide technical support. Another position was that the library must start 'the actual service' so it can show 'something' to the faculty and other potential users. This is interesting, as we can infer respondents did not consider the KNUSTSpace as an 'actual' library publishing product. Also, plans are underway for the acquisition of the Digital Commons to augment the digital resources because of its capabilities to support digital scholarly publishing.

Conclusion

With an existing institutional repository (KNUSTSpace), a platform for academic libraries to pursue library publishing (Stapleton, 2019), the KNUST Library has the potential to engage in a full-fledged scholarly publishing initiative. The library can fully exploit the current digital infrastructure to produce other scholarly publications should the library decide to go the full library publishing route. Also, with OJS already used in managing KNUST's Journal of Science and Technology (JUST), the library can utilise the expertise already available, as well as train its staff in digital scholarly publishing to equip them for the roles required in library publishing.

Given that library publishing is driven by the demand from a parent university to support its academic needs of knowledge creation and dissemination, and also to reflect their peculiar conditions (Skinner and Speer, 2015; Stapleton, 2019), the KNUST Library must carry out a needs assessment across all the faculty to determine demand, to identify which scholarly publication will be relevant for its library publishing initiative. The library can also explore collaborative publishing options with other academic and research libraries that may have library publishing programmes or may be interested in starting one. The Library Publishing Coalition (LPC) will be a good place to begin.

The KNUST Library is already engaged in basic library publishing, therefore, engaging in full-scale library publishing will not be straying away from its mission to 'provide seamless access to high-quality scholarly resources in various formats using innovative and modern methods…' (KNUST Library Strategic Plan, 2017), but rather will offer an extra opportunity for KNUST to expand access to its scholarship, and improve its visibility among the comity of universities across Africa and the world.

Contributions

This paper contributes to the literature on scholarly communication and library publishing, extending the work of Stapleton, (2019). Its focus on an African university and academic library exposes the requirements necessary for library publishing and can inform management of African university libraries to explore the potential of undertaking library publishing to improve their global visibility as they disseminate and project the scholarship from their institutions.

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