

Faculty's and Postgraduate Students' Awareness of and Attitudes to Using the Institutional Repository: The Case of the University of Swaziland

Nokuphila Saulus

<https://orcid.org/0000-0001-5097-8152>

University of Swaziland

nrsaulus@gmail.com

Stephen Mutula

<https://orcid.org/0000-0003-3776-8104>

University of KwaZulu-Natal

mutulas@ukzn.ac.za

Abstract

Institutional repositories (IRs) play an essential role in preserving universities' intellectual output, enhancing access to research, and increasing the visibility of scholars and their institutions. IRs are therefore expected to be accepted and optimally utilised by scholars. However, the literature reveals that IRs are growing at a slower pace than anticipated, and that it has not been easy to convince faculty members to contribute their work to IRs. Therefore, this study examined the awareness of the faculty and postgraduate students at the University of Swaziland (UNISWA) of their IR, and also assessed their attitudes to using their IR. The study was underpinned by the post-positivist paradigm, and the quantitative research approach was used. The study adopted a survey design with questionnaires administered to the faculty and postgraduate students. The results of the study revealed that most of UNISWA's faculty knew about the existence of the IR, whereas the majority of the postgraduate students were not aware of it. It was established that the most popular sources of hearing about the IR were colleagues, institutional emails, and seminars and/or workshops. The results further revealed that even though the majority of the faculty was aware of the IR, very few contributed their research. The reasons cited for the poor uptake of the university's IR included lack of awareness, few or no publications to contribute, and no time to access the IR due to heavy workloads. The faculty and postgraduate students also preferred to be assisted by librarians in archiving content in the IR. The issues discussed in this article have implications for the enhancement of research, practice, and policy in the context of developing countries.

Keywords: institutional repository; University of Swaziland; awareness; attitudes; faculty; postgraduate students



Introduction

Kiran and Chia (2009) define IRs as web-based archives of scholarly materials. Singeh, Abrizah, and Karim (2013) aver that IRs capture and preserve a university's intellectual output, which eventually contributes to the institution's visibility. Open access (OA) institutional repositories (IRs) were introduced to ease the information access constraints that libraries across the world, but even more so in developing countries, faced in the 1990s. These constraints included budget cuts, annual increases of journal prices above inflation rates, and the devaluation of local currencies. Such constraints made it difficult for libraries to maintain their journal subscriptions (Hoskins 2009). In the same vein, Christian (2008) asserts that OA IRs were introduced in response to the increasing legal and economic barriers imposed by commercial publishers, which made it difficult for scholars to access research output and scholarly information.

Libraries therefore expected IRs to be accepted and optimally utilised to ease the scholarly constraints experienced. However, studies have revealed that IRs have grown at a much slower pace than anticipated and that it has not been easy to convince faculty to make their scholarly work available in IRs (Dubinsky 2014; Dutta and Paul 2014; Kiran and Chia 2009; Mark and Shearer 2006). In fact, current IR deposition estimates indicate that only 15 to 30 per cent of eligible scholars and researchers deposit their work in IRs (Cullen and Chawner 2011). Mark and Shearer (2006) assert that the poor uptake of IRs is a worldwide phenomenon and is common where voluntary compliance is the norm. This assertion is buttressed by Hazzard and Towery (2017) who also assert that merely passing OA policies does not guarantee increased faculty engagement in OA initiatives. Tay (2017) further bolsters this assertion through arguing that despite the flood of mandates from institutions and funders, most IRs are in fact full of entries that contain only bibliographic details and no full texts.

Just like IRs the world over, the UNISWA IR is under-utilised by faculty and postgraduate students, of whom the majority are involved in research. Faculty and postgraduate students are not keen to deposit their published work in the UNISWA IR (Dlamini 2016). Given that universities around the world, including those in Africa, are increasingly establishing IRs in an attempt to promote access to published scholarly literature, the extent to which target users utilise IRs needs to be well understood. Since IRs cannot exist without the support of lecturers and researchers, the need to look into scholars' awareness levels of and attitudes to IRs cannot be overemphasised (Salo 2008). Although the issues of faculty's awareness levels of and attitudes to using IRs have been addressed in studies conducted in different contexts (e.g. Christian 2008; Dutta and Paul 2014), no study has specifically focused on these issues in the context of the UNISWA IR. Thus it is not known if the results obtained in other contexts would be applicable in the context of the UNISWA IR. Hence, this study sought to examine the levels of awareness and attitudes of UNISWA faculty and postgraduate students regarding the use of the institution's IR. The study addressed the following research objectives:

- To examine the awareness levels of UNISWA faculty and postgraduate students regarding the IR.
- To examine and compare IR awareness levels across UNISWA's faculties and departments.
- To determine the attitudes of faculty and postgraduate students to the UNISWA IR.

Literature Review

Salo (2008) opines that lecturers who are supposed to be major contributors to IRs seem to be disinterested in populating IRs, and that IRs cannot continue to exist without the resolute and persistent support of the lecturers. Chilimo (2016) argues that such disinterest in IRs has to do with lecturer's mind-sets. Therefore, the recruitment of content for IRs is dependent on changing the attitudes of lecturers and other authors to IRs. Chilimo further expresses the opinion that creating awareness about an IR and advocating its use play an essential role in building the trust of lecturers and other scholars who are likely to populate the IR. In the same vein, Watson (2007) argues that making IRs available does not mean that researchers will automatically be aware of them and start archiving their work. In fact, researchers are more likely to use IRs if they are aware of their existence and the benefits of using them (Chilimo 2016).

According to Christian (2008), lack of awareness is a major impediment to the usage of IRs. Casey (2012) agrees that the lack of awareness about the strategic importance of IRs threatens their long-term sustainability, and Christian (2008) adds that, unless such ignorance is tackled, there will be no meaningful IR developments. On the other hand, Bamigbola (2014) points out that even though IR awareness levels among faculty members from the Federal University of Technology, School of Agriculture and Agricultural Technology in Akure, Nigeria were high, only four (7.8%) faculty members submitted their research in the institution's IR from March to April 2013. In the same vein, Manchu and Vasudevan (2018) report that even though 83.2 per cent of researchers from Calicut University in India were aware of OA IRs, only a few (35.2%) deposited their research output in the IR. Similarly, Swan and Brown (2004) found that 67 per cent of journal authors from the United States and several European countries who had never published in OA journals were in fact aware of the OA concept. Christian (2008) avers that the low IR awareness levels could be ameliorated through adequate advocacy of OA.

Besides the lack of awareness, other reasons for the poor uptake of IRs have been cited by various authors and researchers. These include the fear of violating copyright and intellectual property agreements, the fear that posting research in IRs will be regarded as prior publication, and the lack of perceived incentives for IR deposits (Mark and Shearer 2006). Other barriers to faculty participation in IRs include the perception of the redundancy of an IR considering the availability of other modes of disseminating

information, the fear of plagiarism, and the preference to archive scholarship in disciplinary repositories (Dubinsky 2014). The literature also reveals that the slow adoption of IRs by academics can be attributed to inertia on the part of faculty, and a lack of knowledge regarding the advantages of OA (Singeh, Abrizah, and Karim, 2013). Jantz and Wilson (2008) point out that the poor uptake of IRs by faculty could be attributed to the immaturity of IRs (in terms of infrastructure and content) and the absence of a coherent articulation of how IRs will advance scholarship. Ferreira et al. (2008) found that the uptake of the IR at the University of Minho in Portugal was low due to doubts about copyright issues and a lack of knowledge about the advantages of OA. Bamigbola (2014) established that the poor uptake of IRs at the Federal University of Technology, Nigeria was due to lack of awareness, power supply interruptions, fear of plagiarism, copyright violations, and inability to publish works deposited in IRs.

According to Covey (2011), another obstacle to faculty's self-archiving in IRs is time. If a lot of time is required to self-archive, faculty members are less likely to do self-archiving. Carr and Harnad (2005) argue that even though some studies dismiss the "lack of time" concern as unfounded anxiety since self-archiving is supposedly quick and easy, the reality is that even an average of 10 minutes spent on archiving a single article can be cumbersome for busy faculty members with a backlog of materials to deposit. Quinn (2010) thus recommends the need for librarians to gain an understanding of the factors behind the psychological resistance to archiving as this will put them in a better position to develop effective strategies for encouraging faculty and students to archive in IRs.

Quinn (2010) asserts that the poor uptake of IRs by scholars could be attributed to the fact that some scholars are reluctant to learn and relearn a technology they do not use often. In fact, Davis and Connolly (2007) argue that using new technologies, including IRs, involves a learning curve and that faculty do not see the need for learning and mastering a new system they do not perceive to add value to their work. Instead of contributing their research to IRs, some scholars prefer to make their work available on personal web pages and departmental websites, which they see as sufficient for their professional recognition and development.

Methodology

The study was underpinned by the post-positivist paradigm, and a quantitative approach was adopted. The post-positivist paradigm was used to obtain numeric data that could be analysed statistically and to further enable the objective measurement of variables of interest which in this case were those associated with the measurement of respondents' attitudes and awareness of the IR. Since UNISWA's faculty and postgraduate students are spread across three campuses, self-administered questionnaires were used to collect data from them.

The sampling frame for the postgraduate students was obtained from the university's students' records office. A list of faculty members was obtained from the university's vice-chancellors' report of 2015, which is an authentic report on faculty and staff in various departments across the university. The population of this study comprised 754 respondents, which included 450 master's students, 17 Ph.D. students, and 287 faculty members. Table 1 shows the population of the study.

Table 1: Study population

	Total number (N)
Postgraduate students (Institute of Postgraduate Studies)	
Master's	450
Ph.D.	17
Faculty	
Agriculture and Consumer Sciences	68
Commerce	16
Education	36
Health Sciences	37
Humanities	30
Science and Engineering	56
Social Sciences	34
Institute of Distance Education	10
Total population of study	754

Sources: UNISWA (2015); UNISWA (2016)

A census was used to select Ph.D. students and faculty from the different UNISWA faculties/programmes; they numbered fewer than 100 and 200 respectively. According to Leedy and Ormrod (2005), a census is conducted when respondents are fewer in number than 100 or 200. Master's students were categorised according to their department (i.e. the Institute of Postgraduate Studies). The Krejcie and Morgan table was used to determine the sample size for the 450 master's students who numbered more than 100. This resulted in 210 master's students being sampled. These respondents were then proportionately divided into strata according to their academic programmes using the formula ($nh = (Nh/N) * n$), where nh was the sample size for the stratum, Nh was the population size for the stratum, N was the total population size, and n was the total sample size. Table 2 shows the study's sample of master's students.

Table 2: Sample sizes for master’s students per academic programme

Academic programmes	Total number (N)	Sample size (nh)
Master’s students		
Humanities		
M.A. History	13	6
Education		
M.Ed. Adult Education	11	5
M.Ed. Curriculum and Teaching	79	37
M.Ed. Education Foundation	143	67
Agriculture and Consumer Sciences		
M.Sc. Agricultural Education	42	20
M.Sc. Agricultural Extension	2	1
M.Sc. Agriculture and Applied Economics	49	23
M.Sc. Consumer Science Education	9	4
M.Sc. Crop Science	11	5
M.Sc. Animal Science	13	6
M.Sc. Horticulture	5	2
Science and Engineering		
M.Sc. Environmental Resource Management	61	28
M.Sc. Chemistry	12	6
Number of master’s students	450	210

Source: UNISWA (2015)

Convenience sampling was used to select master’s students who were easily accessible to the researchers. Using convenience sampling was beneficial since the postgraduate students were spread across different campuses, making it difficult to access them.

The quantitative data obtained from this study was coded and analysed using IBM’s SPSS statistical software. The results were presented using tables and figures, including bars and pie charts.

A limitation of the research design was the fact that some of the faculty took a long time to complete their questionnaires. This required the researcher to make numerous follow-ups before these respondents successfully completed the questionnaires. Since some of the questionnaires for master’s and Ph.D. students were distributed in lecture halls, those who were absent could not be reached to complete questionnaires. This limitation was addressed by also distributing questionnaires in the library’s postgraduate research commons in order to access even those students who were no longer doing course work.

Results and Discussion

The results were interpreted and discussed based on the themes of the study, namely, IR awareness levels of faculty and postgraduate students, and their attitudes towards the IR.

IR Awareness

Faculty and postgraduate students were asked to indicate if they were aware of the UNISWA IR or not. As shown in Table 3, the majority of the faculty (136; 66.2%) and 69 (33.6%) of the postgraduate students indicated that they were aware of the IR. Very few (21; 22.4%) of the faculty indicated that they were not aware of the IR, whereas the bulk of the students (73; 77.7%) indicated that they were not aware of the IR. Of the faculty, 58 (60.4%) stated that they had looked at the IR site after the researcher had told them of its existence. Only 38 (39.6%) postgraduate students had taken a look at the IR site after the researcher had told them about it. Therefore, among the respondents, most of the faculty knew about the existence of the IR, whereas the majority of the postgraduate students did not know about it.

Table 3: Respondents' IR awareness (n = 395)

Awareness about the IR		Yes	No	Looked at IR after briefed by researchers	Total
Teaching assistants	Count	5	0	3	8
	% among teaching assistants	62.5%	.0%	37.5%	100.0%
	% among academics	2.4%	.0%	3.1%	2.0%
Lecturers	Count	88	14	47	149
	% among lecturers	59.1%	9.4%	31.5%	100.0%
	% among academics	42.9%	14.9%	49.0%	37.7%
Senior lecturers	Count	22	4	5	31
	% among senior lecturers	71.0%	12.9%	16.1%	100.0%
	% among academics	10.7%	4.3%	5.2%	7.8%
Associate professors	Count	13	2	1	16
	% among associate professors	81.3%	12.5%	6.3%	100.0%
	% among academics	6.3%	2.1%	1.0%	4.1%
Professors	Count	8	1	2	11
	% among professors	72.7%	9.1%	18.2%	100.0%
	% among academics	3.9%	1.1%	2.1%	2.8%
Total Faculty		136 (66.2%)	21 (22.4%)	58 (60.4%)	215 (54.4%)
Master's students	Count	64	69	36	169
	% among master's students	37.9%	40.8%	21.3%	100.0%
	% among academics	31.2%	73.4%	37.5%	42.8%
Ph.D. students	Count	5	4	2	11
	% among Ph.D. students	45.5%	36.4%	18.2%	100.0%
	% among academics	2.4%	4.3%	2.1%	2.8%
Total students		69 (33.6%)	73 (77.7%)	38 (39.6%)	180 (45.6%)

The findings of the current study confirmed the findings of Dolan (2011) who, in assessing the awareness of the faculty of West Virginia University of the institution's repository, established that they were highly aware not only of the institution's repository but also of open access practices. The findings of the current study further confirmed the study findings of Ogbomo (2015) that the levels of awareness of IRs and of the perceived benefits of IRs were high among lecturers from federal universities in the south zone of Nigeria. The high IR awareness levels among faculty could be because of the internet revolution in universities and the frequent use of the internet for academic activities (Emojorho, Oghenetega, and Onoriode 2012).

The results of the current study further revealed that the majority of UNISWA's postgraduate students were not aware of the institution's IR. Similarly, Stanton and Liew (2011), who examined Massey University's doctoral students' awareness of open access and IRs, found that less than half of the surveyed respondents were aware of the concept of repositories. Stanton and Liew further interviewed eight of their study's respondents and found that whereas six of them were aware of the concept of IRs, only five of them were aware of the existence of the IR at their institution. These authors established that while levels of awareness seemed high among interviewees, they lacked deeper knowledge about the concept of IRs. Another study by Muneja (2009) assessed Tanzania's University of Dar es Salaam's library users' levels of awareness about IRs and their interests in the establishment of an IR, and found that very few of the surveyed respondents knew about IRs. The lower levels of awareness among students could be attributed to the fact that research output was not regarded as a key determinant in the academic growth and progression of students (Vlachaki and Urquhart 2010).

The current study expanded its analysis so as to determine IR awareness levels of respondents across different faculties. The findings, as presented in Table 4, revealed that 70 (34%) postgraduate students from UNISWA's Institute of Postgraduate Studies were aware of the institution's IR but that many of them (73; 77.7%) were not. As regards the awareness levels of IR among academics in their respective faculties, the study established as follows (presented from the highest to the lowest): Agriculture and Consumer Sciences—35 (17.1%) aware and 1 (1.1%) not aware; Science and Engineering—26 (12.7%) aware and 5 (5.3%) not aware; Social Sciences—19 (9.3%) aware and 3 (3.2%) not aware; Education—16 (7.8%) aware and 2 (2.1%) not aware; Humanities—14 (6.8%) aware and 5 (5.3%) not aware; Health Sciences 14 (6.8%) aware and 2 (2.1%) not aware; Institute of Distance Education—7 (3.4%) aware and 1 (1.1%) not aware; and Commerce—4 (2.0%) aware and 2 (2.1%) not aware.

Table 4: Participants' awareness of IR by faculties (n = 395)

Faculty of participants	Yes	No	No (looked at IR after briefed by researcher)	Total
Institute of Postgraduate Studies	70 (34%)	73 (77.6 %)	38 (41%)	181
Agriculture and Consumer Sciences	35 (17.1%)	1 (1.1%)	9 (9.4%)	45
Education	16 (7.8%)	2 (2.1%)	8 (8.6%)	26
Health Sciences	14 (6.8%)	2 (2.1%)	9 (9.4%)	25
Institute of Distance Education	7 (3.4%)	1 (1.1%)	0 (0%)	8
Science and Engineering	26 (12.7%)	5 (5.3%)	17 (17.7%)	48
Social Sciences	19 (9.3%)	3 (3.2%)	8 (8.6%)	30
Commerce	4 (2.0%)	2 (2.1%)	2 (2.2%)	8
Humanities	14 (6.8%)	5 (5.3%)	5 (5.2%)	24
Total	205	94	96	395

These findings confirmed the findings of Abrizah (2009) who conducted a study at a research-intensive university in Malaysia and established that lecturers in the sciences (including medicine, engineering science and computer science) were aware of OA IRs and in favour of depositing their research work in repositories. Similarly, Bamigbola (2014), in a study assessing IR awareness levels of and challenges faced by academics in the faculty of agriculture at the Federal University of Technology in Nigeria, revealed that these academics were adequately aware of IRs. In yet another study, Allen (2005) examined attitudes of academic staff towards depositing their research in IRs and found that OA and IR awareness levels were lower among academics in the humanities, compared to their counterparts in the science, technical and medical disciplines. In the same vein, Stanton and Liew (2011) found that IR awareness levels among respondents from the field of science were higher compared to those from the fields of humanities, education, creative arts and business. The high IR awareness levels of academics in the sciences is not surprising considering the existence of subject-based repositories (including arXiv and Cogprints) in the scientific community (Swan and Brown 2005).

The respondents of the current study were further probed regarding their sources of information about the UNISWA IR. As presented in Figure 1, the combined responses from faculty and postgraduate students revealed that 185 (46.8%) were not aware of the UNISWA IR. The rest of the respondents who were aware of the IR, had been made aware of the IR through: hearing about it from colleagues (132; 33.4%); emails from the institution (21; 6.3%); seminars and workshops (19; 4.8%); websites (8; 2%); library

committee meetings (8; 2%); lecturers (8; 2%); figuring it out on their own (4; 1%); library staff (4; 1%); orientation (3; 0.8%); library skills classes (2; 0.5%); and the grapevine (1; 0.3%). According to these findings, respondents' colleagues represented the most prevalent source of creating awareness about the IR, followed by emails from the institution, and seminars and workshops. The least prevalent way in which respondents became aware of the IR was through finding out about it on their own, hearing about it from library staff, and through orientation, library skills classes, and the grapevine.

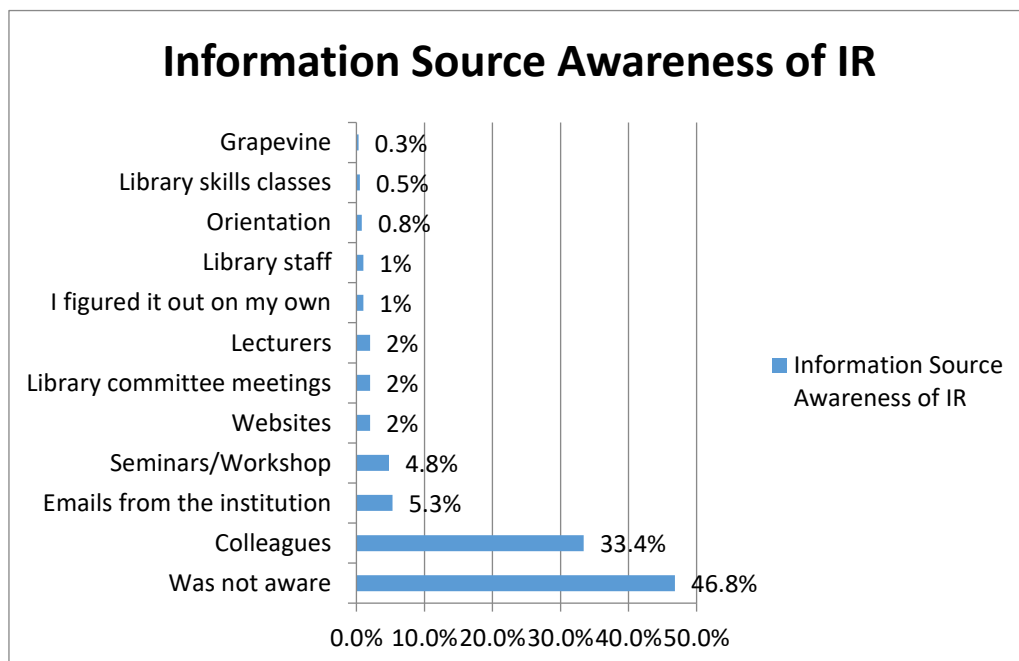


Figure 1: IR awareness sources (n = 395)

Similarly, Bamigbola's (2014) study indicated that the majority of faculty from agricultural disciplines in a Nigerian university had been informed about IRs through their colleagues. The findings of the current study validated the study findings of Nwosu and Ogbomo (2013) who reported that most lecturers from the federal universities in South-South Nigeria heard about IRs through academic staff/colleagues, and others through internet browsing. Halder and Chandra (2012) confirmed that the most prevalent IR awareness sources among IR users from Jadavpur University in India were colleagues, teachers/lecturers and the library website. Likewise, the least popular sources were the internet and bulletin boards. Fewer lecturers from federal universities in South-South Nigeria became aware of the IR through workshops, bulletins and flyers. The variations in the preferred IR awareness sources could be attributed to IR users' varying information processing habits.

Attitudes towards IR Usage

Respondents were asked if the UNISWA library provided enough training to enable the effective usage of the IR. The findings presented in Table 5 indicate that the majority (69; 60%) of faculty and 46 (40%) postgraduate students disagreed that the training was sufficient. Very few (23; 71.8%) of faculty, and only 9 (28.1%) among the postgraduate students agreed that the training the UNISWA librarians provided was sufficient. A number of respondents, including 46 (76.6%) of faculty and 14 (23.4%) of the postgraduate students, neither agreed nor disagreed that the library provided enough training.

Table 5: Adequacy of training (n = 395)

Adequacy of training: The library provides adequate training on IR usage.		Never used IR	Disagree	Neutral	Agree	Total
Teaching assistants	Count	3	3	2	0	8
	% among teaching assistants	37.5%	37.5%	25.0%	.0%	100.0%
	% among academics	1.6%	2.6%	3.3%	.0%	2.0%
Lecturers	Count	59	46	28	16	149
	% among lecturers	39.6%	30.9%	18.8%	10.7%	100.0%
	% among academics	31.4%	40.0%	46.7%	50.0%	37.7%
Senior lecturers	Count	9	11	6	5	31
	% among senior lecturers	29.0%	35.5%	19.4%	16.1%	100.0%
	% among academics	4.8%	9.6%	10.0%	15.6%	7.8%
Associate professors	Count	3	4	8	1	16
	% among associate professors	18.8%	25.0%	50.0%	6.3%	100.0%
	% among academics	1.6%	3.5%	13.3%	3.1%	4.1%
Professors	Count	3	5	2	1	11
	% among professors	27.3%	45.5%	18.2%	9.1%	100.0%
	% among academics	1.6%	4.3%	3.3%	3.1%	2.8%
Total Faculty		77 (41%)	69 (60%)	46 (76.6%)	23 (71.8%)	215 (54.4%)
Master's students	Count	105	43	13	8	169
	% among master's students	62.1%	25.4%	7.7%	4.7%	100.0%
	% among academics	55.9%	37.4%	21.7%	25.0%	42.8%
Ph.D. students	Count	6	3	1	1	11
	% among Ph.D. students	54.5%	27.3%	9.1%	9.1%	100.0%
	% among academics	3.2%	2.6%	1.7%	3.1%	2.8%
Total Students		111 (59.1%)	46 (40%)	14 (23.4%)	9 (28.1%)	180 (45.6%)

These results are bolstered by findings of a study conducted by Okite-amughoro, Makgahlela, and Bopape (2014) who assessed the usage of electronic information resources for academic research by postgraduate students from Delta University in Nigeria and established that these students failed to retrieve relevant information from electronic resources due to insufficient training. The findings of the current study support the findings of a study that was carried out by Namugera (2014) and investigated

users' awareness, perceptions and usage of library services at Makerere University in Uganda. Namugera's study revealed that a considerable number of respondents were not aware of library user training services, even though such training was included in the university's orientation programme for new students every academic year. Namugera asserts that the poor attendance and awareness of library training programmes could be because the training schedules often coincide with lecturers' and students' work plans.

The respondents (faculty and postgraduate students) in the current study were further asked if they submitted their research for inclusion in the IR. Many (313; 79.2%) of the respondents indicated that they did not contribute to the institution's repository, whereas 72 (18.2%) indicated that they contributed to the IR but did so infrequently, and very few (10; 2.5%) indicated that they frequently contributed content to the IR (see Figure 2). Even though the majority of faculty indicated that they were aware of the IR, very few of them contributed their research to the UNISWA IR.

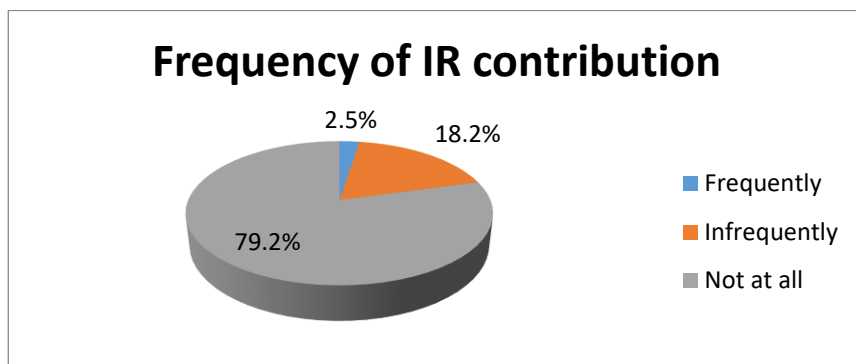


Figure 2: IR contributions (n = 395)

Comparable results were obtained in a study by Bamigbola (2014): very few of the faculty from the Federal University of Technology in Nigeria submitted their research for inclusion in the university's IR. Most respondents had not submitted their scholarly works in the IR but used it to search for information, whereas fewer respondents neither submitted their research to the IR nor used the IR to search for information. The similarities in the IR contribution trends reported in the above studies, which were conducted in diverse contexts, could perhaps be attributed to challenges that scholars faced, which included lack of time, lack of skills or training in IR usage, as well as poor internet connections in these developing countries.

In the current study, faculty and postgraduate students were probed about the reasons for using the IR frequently or infrequently or not at all. They cited lack of awareness

(104; 26.3%), few or no publications to contribute (119; 30.1%), not being well-informed (55; 13.9%), and lack of time to access the IR due to a heavy workload (37; 9.4%). Other respondents indicated that they preferred scholarly journals (12; 3.0%), they lacked skills (12; 3.0%), no one requested their publications (9; 2.3%), they were discouraged by the slow internet (9; 2.3%), they had not considered sharing their work (8; 2.0%), and they did not own copyright (6; 1.5%). A few respondents cited reasons such as: they did not find the IR useful (4; 1.0%); they were not sure if the IR was properly managed (2; 0.5%); IR submissions were not mandatory (2; 0.5%); there were no options to upload their work (2; 0.5%); and they contributed research to their own departments (1; 0.3%). The reason cited by those who used the IR frequently (13; 3.3%) was their wish to share their research and make it easily accessible to colleagues. Table 6 shows respondents' reasons for frequently or infrequently contributing to the IR.

Table 6: Respondents' reasons for frequency of IR contributions (n = 395)

Reasons	Frequency	Percentage %
I am not aware of the IR.	104	26.3
I do not have enough publications.	119	30.1
I am willing to use it but am not well-informed.	55	13.9
I have no time for research—hectic work schedule.	37	9.4
IRs promote easy access to works by colleagues.	13	3.3
I prefer scholarly journals.	12	3.0
I lack skills for using the IR.	12	3.0
No one asked for my publications.	9	2.3
I am discouraged from using the IR by the slow internet.	9	2.3
I have not considered contributing my work.	8	2.0
Copyright for my work belongs to publishers.	6	1.5
I do not find the UNISWA IR useful.	4	1.0
I am not sure if the IR is properly managed.	2	0.5
IR submissions are not mandatory.	2	0.5
There is no option to upload my own work.	2	0.5
I contribute research findings to my department.	1	0.3
Total	395	100

The findings of the current study confirmed the results of a study conducted by Foster and Gibbons (2005) who examined the factors encouraging or impeding professors' IR submissions and likewise found that faculty's contributions were driven by the wish to enable their colleagues to find, use, and cite their work. Foster and Gibbons identified a number of factors that hindered IR submissions, for example, fear of copyright

infringements and the lack of time for the additional work required during the document submission process. In the same vein, Dubinsky (2014) cites reasons for scholars' reluctance to contribute to IRs, which include concerns about copyright infringements, lack of peer review, and doubts about the inherent value of IRs. Likewise, Davis and Connolly (2007) have identified the following reasons for poor IR submission: lack of awareness; IR regarded as redundant as other modes of research dissemination are available; copyright fears; plagiarism concerns; and preference for submitting research in disciplinary repositories.

Faculty and postgraduate students participating in the current study were asked to state their preferred method of submitting their research outputs to the UNISWA IR. Most respondents (279; 70.6%) preferred submitting their work through librarians in charge of the IR, whereas fewer respondents (111; 28.1%) preferred self-archiving their work. Only a few (5; 1.3%) faculty members and postgraduate students preferred having both options available (see Figure 3).

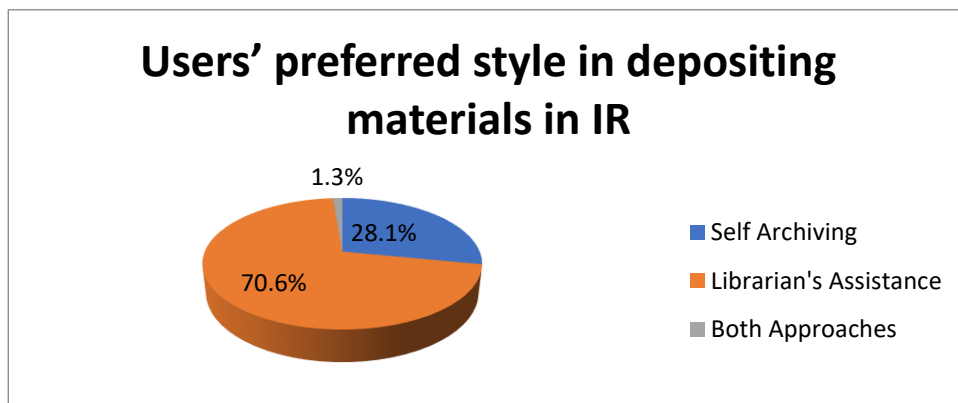


Figure 3: Users' preferred IR submission styles (n = 395)

Similar findings were observed in a study by Dubinsky (2014) which examined 214 academic institutions that used the IR software of the Digital Commons network and which found that the majority of the respondents submitted their research through library staff whereas fewer respondents indicated that their IRs were populated through a combination of mediated deposits (submissions through librarians) and self-archiving. The results of the current study, together with the findings of Dubinsky's study, clearly showed that the majority of the respondents preferred submitting to IRs through librarians. This could be because they do not have the time to self-archive their research output or they lack the necessary IR submission skills.

When asked to state the reasons for preferring to submit their material to the IR through librarians, the respondents of the current study indicated the following: librarians had expertise in knowledge organisation (153; 38.7%); respondents lacked skills in using

the IR (75; 19%); respondents did not have the time to deposit documents on their own (38; 9.6%); respondents trusted librarians not to lose information during the document submission process (14; 3.5%). Some respondents preferred submitting research to the IR on their own for the following reasons: it was more convenient (49; 12.4%); it enabled them to better understand the UNISWA IR system (37; 9.4%); they had the technical skills and know-how (20; 5.1%); they felt at ease doing it themselves since they did not trust anyone to handle their scholarly work (2; 0.5%). The remaining respondents preferred having both options available as they could choose which method would make the submission process faster and easier (4; 1%), and they could be assured that copyright regulations were not violated (1; 0.3%). These results are displayed in Table 7.

Table 7: Reasons for specific archiving preference (n = 395)

Reasons	Frequency	%
Librarians have the required expertise.	153	38.7
I have no technical skills/I need training.	75	19
Doing it on my own is more convenient.	49	12.4
I have no time to do it myself.	38	9.6
Doing it myself will enable me to understand the IR system.	37	9.4
I have the technical know-how and can do it myself.	20	5.1
To ensure that no information is lost	14	3.5
Combining both would make work easier and faster.	4	1
I do not trust anyone with my scholarly articles.	2	0.5
I was not aware of the IR.	2	0.5
To ensure copyright laws are not violated	1	0.3
Total	395	100

These findings supported the findings of Singeh, Abrizah, and Karim (2013) about factors affecting the archival of research output by faculty. These factors are, for instance, no time for the arduous job of entering complicated bibliographic data in metadata forms, investigating publisher’s permission policies, and digitising paper documents. Dubinsky (2014) notes that some IR administrators do not allow faculty to self-archive their research outputs due to concerns about the consistency and quality of the submitted metadata, appropriateness of content, and copyright permissions. Dubinsky further points out that IR administrators also do not allow faculty to self-archive their research due to their lack of interest, willingness, or time for IR submissions.

Conclusion and Recommendations

The findings of the current study indicated that even though IR awareness levels were high among UNISWA faculty, they did not contribute their research to the IR. The

conclusion that can be drawn from this finding, a conclusion that is in line with an assertion by Ammarukleart (2017), is that high rates of faculty awareness about IRs and faculty's understanding of the importance of IRs do not guarantee their participation. The results of the study further revealed that there were differences in IR awareness levels among UNISWA faculty and postgraduate students across disciplines. This finding is important as it could assist librarians in identifying disciplines where they need to strengthen their IR promotion efforts. The results of the study also revealed that the majority of the respondents thought that UNISWA provided insufficient IR training, and that users preferred to be assisted by librarians in archiving and/or submitting IR content.

In view of the findings of the study, the following recommendations are proffered:

- Librarians need to raise IR awareness levels through advocacy campaigns.
Librarians need to create a clear communication plan for advocacy campaigns in order to ensure that OA messages and the benefits of establishing and managing IRs are effectively disseminated to IR users. Librarians need to particularly increase their IR marketing efforts in the UNISWA faculties and departments with lower IR awareness levels.
- IR training should be done frequently in order to guide users on how to effectively search, retrieve and submit information. The training sessions should be provided to all potential IR users, particularly new members of staff and students.
- Librarians should assist faculty with the submission of content to the IR to minimise any challenges they might come across when self-archiving and/or depositing articles in the IR.
- Librarians should consider allowing IR users to use both the self-archival and the librarian-mediated approaches in depositing content in the UNISWA IR.

References

- Abrizah, A. 2009. "The Cautious Faculty: Their Awareness and Attitudes towards Institutional Repositories." *Malaysian Journal of Library & Information Science* 12 (2): 17–37.
- Allen, J. 2005. "Interdisciplinary Differences in Attitudes towards Deposit in Institutional Repositories." Master's thesis, Manchester Metropolitan University, Manchester.
- Ammarukleart, A. 2017. "Factors Affecting Faculty Acceptance and Use of Institutional Repositories in Thailand." Ph.D. dissertation, University of North Texas, Denton, TX.
- Bamigbola, A. 2014. "Surveying Attitude and Use of Institutional Repositories (IRs) by Faculty in Agriculture Disciplines: A Case Study." *Procedia: Social and Behavioral Sciences* 147 (1): 505–9. <https://doi.org/10.1016/j.sbspro.2014.07.145>.

- Carr, L., and S. Harnad. 2005. "Keystroke Economy: A Study of the Time and Effort Involved in Self-Archiving." Accessed January 9, 2016. <http://eprints.ecs.soton.ac.uk/10688/>.
- Casey, A. M. 2010. "Does Tenure Matter? Factors Influencing Faculty Contributions to Institutional Repositories." *Journal of Librarianship and Scholarly Communication* 1 (1), eP1032. <https://doi.org/10.7710/2162-3309.1032>.
- Chilimo, W. 2016. "Institutional Repositories: Awareness and Self-Archiving Practices of Academic Researchers in Selected Public Universities in Kenya." Paper presented at the Fourth CODESRIA Conference on Electronic Publishing, Dakar, Senegal, March 30–April 1, 2016.
- Christian, G. E. 2008. "Issues and Challenges to the Development of Open Access Institutional Repositories in Academic and Research Institutions in Nigeria." A Research Paper prepared for the International Development Research Centre, Ottawa, Canada. <https://doi.org/10.2139/ssrn.1323387>.
- Covey, Denise Troll. 2011. "Recruiting Content for the Institutional Repository : The Barriers Exceed the Benefits." *Journal of Digital Information* 12 (3): 1–18.
- Cullen, R., and B. Chawner. 2011. "Institutional Repositories, Open Access, and Scholarly Communication: A Study of Conflicting Paradigms." *Journal of Academic Librarianship* 37 (6): 460–70. <https://doi.org/10.1016/j.acalib.2011.07.002>.
- Davis, P., and M. Connolly. 2007. "Institutional Repositories: Evaluating the Reasons for Non-Use of Cornell University's Installation of DSpace." *D-Lib Magazine* 13 (3/4). <https://doi.org/10.1045/march2007-davis>.
- Dlamini, N. 2016. Interview with the researcher on March 6, 2016 in Pietermaritzburg.
- Dolan, Molly. 2011. "Assessing Awareness of Repositories and the Open Access Movement among ETD Faculty Advisors." In *Proceedings of the 14th International Symposium on Electronic Theses and Dissertations*, Cape Town, South Africa, September 13–17, 2011.
- Dubinsky, E. 2014. "A Current Snapshot of Institutional Repositories: Growth Rate, Disciplinary Content and Faculty Contributions." *Journal of Librarianship and Scholarly Communication* 2 (3), eP1167. <https://doi.org/10.7710/2162-3309.1167>.
- Dutta, Goutam, and Dibyendu Paul. 2014. "Awareness on Institutional Repositories-Related Issues by Faculty of University of Calcutta." *Journal of Library & Information Technology* 34 (4): 293–97. <https://doi.org/10.14429/djlit.34.5138>.
- Emojorho, D., I. Oghenetega, and K. Onoriode. 2012. "Awareness of Open Access Scholarly Publication among Lecturers in University of Benin, Benin City in Edo State, Nigeria." *Journal of Research in Education and Society* 3 (1): 1–11.

- Ferreira, Miguel, Ana Alice Baptista, Eloy Rodrigues, and Ricardo Saraiva. 2008. "Carrots and Sticks: Some Ideas on How to Create a Successful Institutional Repository." *D-Lib Magazine* 14 (1/2): 1–13. <https://doi.org/10.1045/january2008-ferreira>.
- Foster, N. F., and S. Gibbons. 2005. "Understanding Faculty to Improve Content Recruitment for Institutional Repositories." *D-Lib Magazine* 11 (1). <https://doi.org/10.1045/january2005-foster>.
- Halder, S., and S. Chandra. 2012. "Users' Attitudes towards Institutional Repository in Jadavpur University: A Critical Study." *International Journal of Management and Sustainability* 1 (2): 45–52.
- Hazzard, J., and S. Towery. 2017. "Workflow Development for an Institutional Repository in an Emerging Research Institution." *Journal of Librarianship and Scholarly Communication* 5 (General Issue), eP2166. <https://doi.org/10.7710/2162-3309.2166>.
- Hoskins, R. 2009. "The Effect of the Crisis in Scholarly Communication on University Libraries in South Africa." Ph.D. thesis, University of KwaZulu-Natal, Pietermaritzburg.
- Jantz, R., and M. Wilson. 2008. "Institutional Repositories: Faculty Deposits, Marketing, and the Reform of Scholarly Communications." *Journal of Academic Librarianship* 34 (3): 186–95. <https://doi.org/10.1016/j.acalib.2008.03.014>.
- Kiran, K., and P. Chia. 2009. "Open Access Initiatives in Academic Libraries: Challenge to the User." Paper presented at the World Library and Information Congress: 75th IFLA General Conference and Council, Milan, Italy, August 23–27, 2009. <http://www.ifla.org/annual-conference/ifla75/index.htm>.
- Leedy, P., and J. Ormrod. 2005. *Practical Research: Planning and Design*. Upper Saddle River, NJ: Prentice Hall.
- Manchu, O., and T. Vasudevan. 2018. "Awareness of Institutional Repositories and Open Access Publishing among Researchers in the University of Calicut." *Journal of Library and Information Science* 8 (1): 1–9.
- Mark, T., and K. Shearer. 2006. "Institutional Repositories: A Review of Content Recruitment Strategies." Paper presented at the World Library and Information Congress: 72nd IFLA General Conference and Council, Seoul, Korea, August 20–24, 2006.
- Muneja, Paul D. 2009. "Creating an Institutional Repository at the University of Dar Es Salaam: Some Experiences." Paper presented at the First International Conference on African Digital Libraries and Archives (ICADLA-1), 1–11, Addis Ababa, Ethiopia, July 1-3, 2009.
- Namugera, L. 2014. "Users' Awareness, Perceptions and Usage of Makerere Library Services in the Main and Selected Branch Libraries." *Qualitative and Quantitative Methods in Libraries* 3: 741–58.

- Nwosu, O., and F. Ogbomo. 2013. "Awareness of Lecturers in South-South Federal Universities in Nigeria of Institutional Repositories." *Journal of Library & Information Science* 3 (1): 116–33.
- Ogbomo, E. F. 2015. "Attitudes of Lecturers in South-South Federal Universities in Nigeria toward the Establishment of Institutional Repositories." *Research Journal of Library Sciences* 3 (4): 1–7.
- Okite-amughor, F., L. Makgahlela, and S. Bopape. 2014. "The Use of Electronic Information Resources for Academic Research by Postgraduate Students at Delta State University, Abraka, Nigeria." *South African Journal of Library & Information Science* 80 (2): 1–7. <https://doi.org/10.7553/80-2-1527>.
- Quinn, B. 2010. "Reducing Psychology Resistance to Digital Repositories." *Information Technology and Libraries* 29 (2): 67–75.
- Salo, D. 2008. "Inn Keeper at the Roach Motel." *Library Trends* 52 (2): 98–123.
- Singeh, F., A. Abrizah, and N. Karim. 2013. "Malaysian Authors' Acceptance to Self-Archive in Institutional Repositories: Towards a Unified View." *Electronic Library* 31 (2): 188–207. <https://doi.org/10.1108/02640471311312375>.
- Stanton, K. V., and C. L. Liew. 2011. "Open Access Theses in Institutional Repositories: An Exploratory Study of the Perceptions of Doctoral Students." *Information Research* 16 (4): 507.
- Swan, A., and S. Brown. 2004. "Authors and Open Access Publishing." *Learned Publishing* 17 (3): 219–24. <https://doi.org/10.1087/095315104323159649>.
- Swan, A., and S. Brown. 2005. "Open Access Self-Archiving: An Author Study." Accessed September 9, 2016. [http://www.keyperspectives.co.uk/openaccessarchive/reports/Open Access II \(author survey on self archiving\) 2005.pdf](http://www.keyperspectives.co.uk/openaccessarchive/reports/Open%20Access%20II%20(author%20survey%20on%20self%20archiving)%202005.pdf).
- Tay, A. 2017. "Rethinking Institutional Repositories." *Research Collection Library* 41 (2): 10–15. http://ink.library.smu.edu.sg/library_research/102.
- UNISWA. 2015. "Report of the Vice-Chancellor." Kwaluseni, Swaziland.
- UNISWA. 2016. "UNISWA Students' Records." Kwaluseni, Swaziland.
- Vlachaki, A., and C. Urquhart. 2010. "Use of Open Access Journals in Biomedicine in Greece." *Journal of Library Management* 31 (1). <https://doi.org/10.1108/01435121011013368>.
- Watson, S. 2007. "Authors' Attitudes to and Awareness and Use of a University Institutional Repository." *Serials* 20 (3): 225–230. <https://doi.org/10.1629/20225>.