# SELFARCHIVING POLICIES OF LIBRARY AND IN-FORMATION SCIENCE JOURNALS: A SHERPA/ ROMEO STUDY

Anjali Sandesh Kale

#### Dr. Anjali Sandesh Kale

Assistant Librarian Knowledge Resource Centre, Rajabai Tower Library, University of Mumbai Mumbai – 400 032, MAHARASHTRA Email: anjali.sandesh@gmail.com Self archiving helps in increasing the visibility and maximizing the impact of research. Researchers are not taking advantage of self archiving due to the lack of awareness and other factors. This study was initiated to identify the self archiving policies of library and information science journals. A SHERPA/ ROMEO database was used to identify self archiving policies of the journals. Data was collected on different aspects of journals like self archiving permissions, format of self archiving, embargo, location and general conditions laid by journals. Analysis of the study revealed that 85% of the journals included in the study were green colour, which means that author can archive pre-print and post-print or publisher pdf. Analysis of self archiving policies of publishers was also conducted and it was found that majority of journals allowed with some restrictions. The study revealed that majority of journals allows self archiving of documents in different stages of publication.

#### INTRODUCTION

Research articles published in scholarly journals are one of the important mediums for communicating the research to peers and wider audience. Rising cost of journals has led to scholarly communication crises due to shifting of control of scholarly work to few large organizations (Bergstrom & Bergstrom, 2006). This has also led to impact and access barriers to scholarly research (Pinfield, 2005). Open access movement which promotes free and online access to scholarship is seen as a medium to overcome scholarly crises. (Harnard, 2004) suggests two roads to open access i.e. green and gold. In golden road, the author publishes their articles in open access journals. Whereas in green road, the authors publish their articles in non open access journals, but also self archive it in an open access archive. Harnard (2004) said that green road is faster and cheaper but gold road is more costly but better maintained and managed. Publication in open access journals can be done by authors, if there are reputed open access journals in the field or discipline. Thus self archiving becomes a

viable option for the authors and researchers if they have to increase the visibility and maximize the impact of their research.

Self archiving has been defined as "when authors make their articles freely available in the digital form on the internet, they are said to be self archiving" (Bailey, 2006). Whereas for some authors it requires to be deposited in an actual archive, either an institutional or discipline repository (Lercher, 2008; Watson, 2007). Laakso (2014) gives a comprehensive definition of self archiving as "it refers to making a version of the work openly available through an open repository or subject repository in compliance with publisher's policy terms on self archival.

# **BACKGROUND OF THE STUDY**

In spite of wide ranging benefits of the self archiving, it has been found that only few articles have been self archived. Authors' reluctance to self archive research articles is due to the different factors like lack of awareness, additional time and efforts required, copyright issues and publisher's policy etc. Though the preprint archiving is permitted, archiving of post print and publisher pdf is copyright issue and depends upon the archival policy of the publishers. Hence, it is necessary to understand the self archiving and publishers' policy of different journals. It is with this background that the present study was initiated to understand the self archiving policies of Library and information science journals.

# **REVIEW OF RELATED LITERATURE**

Numerous studies have been conducted on current state of self archiving policies of different

publishers and journals on different subjects. Gadd et. al (2003) conducted a study on 80 publishers and it was found that almost 49% of journals published by publishers were allowing for green open access. Miguel et al. (2011) found that almost 32% of journals had an explicit policy for allowing green open access. Gadd and Covey (2016) also studied the 12 year journey of 107 publishers listed in Sherpa/Romeo from 2004. It was found that publishers' allowing some form of self archiving has increased by 12% over 12 years. Thus, it can be said that publishers are allowing some form of self archiving for articles published in journals. Laasko (2014) analysed 1.1 million articles and it was found that almost 80.4% of the articles could be uploaded either as an accepted manuscript or publisher version to an institutional or subject repository after one year of publication. Journals from different subjects were also analysed by researchers in Ecology and evolution (Hassall, 2012), Library and Information science (Emery, 2018), ISI ranked Library and Information Science journals (Coleman, 2007), Library and information Science journals indexed in DOAJ (Singsona, et. al 2015), Physics, Computer Science and electronic engineering (Rousi, 2018), Social Science (Antelman, 2006), Spanish Scientific journals (Melero and Rodriguez-Gairin, 2014). It was found that journals across the subject fields allowed for some form of self archiving.

Koos (2019) studied the green deposit rates of library professional. It was found that very low number of articles in the LIS fields was available via open access even though there are no restrictions from the publishers for green

deposits. Fry et al. (2009) found that there is a lack of clarity in publishers' policy, due to which authors feel that they might infringe copyright and this inhibits them to deposit in an open access repositories. In addition, policies of publishers change over time, as a result librarians and repository managers have to contact publishers to ask permission to deposit materials (Hanlon and Ramirez, 2011). Research Studies have found out that majority of journals allow some form of the self archiving by way of uploading accepted manuscripts or publishers version to an institutional or subject repository after one year of publication (Laakso, 2014) in local or subject specific repository (Emery, 2018) or in subject specific archive (Rousi, 2018). It was also found that journals with high impact have more restrictive policies on self archiving and publishers also vary in the extent to which they impose restrictions (Hassall, 2012).

Though the journals were permitting self archiving, it was found that very few LIS authors provide free access to their own publication (Chaudhuri and Baker, 2015). A study on the self archiving practice of Library and Information Science professionals of India using eLIS repository revealed that India occupied the first position among Asian countries. But it was found that most of the articles archived by these authors were mostly published in open access journals. This was preferred to prevent copyright issue and they wanted to put their work in multiple platforms to maximize the visibility and accessibility of their work (Ahmadi and Nazim, 2017). A similar study conducted to examine the open access availability of Library and

Information Science Research revealed archiving is not a regular practice and the self archiving percentage of open access articles is more (Way, 2010). Researches done on perception of authors regarding self archiving suggest that copyright infringement and unknown legal liabilities created due to electronic distribution were key concerns while self archiving (Swan and Brown, 2005; Oppenheim et al, 2000). Literature review has shown that many journals and publishers allow some form of self archiving. Library and Information Science professionals mostly archive the open access article to avoid legal liabilities and to increase the visibility of their publication. To maximize the self archiving of research output, it is important that "Librarians and LIS Scholars need to take a leadership role and set an example for other fields by archiving all articles they publish" (Way, 2010). Thus, the present study is an attempt to study the self archiving policies of library and Information Science journals and publishers. It also attempts to make the researchers aware of different versions which are permitted to be self archived.

# **OBJECTIVES OF THE STUDY**

- 1. To identify the different versions of the publication which can be self archived as per the publisher policy;
- 2. To identify the ROMEO color coding of Library and Information Science journals included in the study;
- 3. To identify the self archiving policies according to the publishers; and
- 4. To assess the common general conditions laid by different journals.

#### METHODOLOGY

An updated list of journals was obtained from the UGC list of approved journals which included 300 journals for the field of library and Information science. Each of these journals was then searched through SHERPA/ROMEO database. SHERPA/ROMEO is an online resource that aggregates and analyses publisher open access policies from around the world and provides summaries of self-archiving permissions and conditions of rights given to authors on a journal-by-journal basis (About SHERPA/ ROMEO). Journals which were mentioned in the SHERPA/ROMEO database were included for this study. It was found that only 154 journals of the 300 journals were included in the SHERPA/ ROMEO database. Data was collected on different aspects of journals like self archiving permissions, format of self archiving, embargo, location and general conditions laid by journals. Sherpa/Romeo database use different color coding to categorize the journals based on their archiving policies. Four colors, i.e Green, Blue, Yellow and White are used. Green Color journals allow archiving of Pre print and post print or publisher pdf. Blue color journals allow archiving of either post print or publisher pdf. Whereas yellow color journals allowed for archiving of pre print only and white color journals does not support any archiving. Data was also collected regarding the color coding of different library and information science journals

# DATA ANALYSIS AND FINDINGS

#### Versions of Publication for Self-archiving

Manuscript passes through different versions; each version corresponds to different

stages of the peer review and publication. Different versions of documents are Pre Print, Post Print and Publishers Pdf. *Pre Print:* is the manuscript which is submitted by the author to a journal for consideration for publication. It is the version of the paper before peer review. *Post Print:* Post prints are the versions of the paper after peer review. It includes all the revisions made during the peer review process. *Publishers Pdf:* is the final version of the article which is published by the publisher.

## **Pre-Print Version of Publications**

The table 1 presents that majority of journals that is 94% journals allowed for pre print archiving. For one journal the policy was unclear. Seven (0.64%) journals were not allowing for pre print archiving. One journal allowed for pre print archiving with restrictions. Restrictions imposed were that a written permission must be obtained from editor and authors must not violate American Chemical Society Ethical guidelines. Out of 145 journals which allowed pre print archiving, four journals from Oxford University Press recommended that "Authors preprint cannot be posted prior to acceptance. 23 journals also mentioned about the location where the pre print article can be hosted.

# Table 1: Number of Journals permitting selfarchiving of Pre- Print Version

Pre print Archiving		No. of Journals	Percentage (%)	
Allowed		145	94%	
Allowed	with	1	0.64%	
restrictions				
Not allowed		7	0.64%	
Unclear		1	4.54%	

## Location for hosting Pre-Print Version

Preferred location for hosting pre print by many journals is pre print repositories like Arxiv and RePec, followed by personal website of an author. The table 2 gives the details of the location where pre print can be hosted.

Sl. No.	Location	No. of Journals
1	Authors Personal Website	5
2	Departmental Website	2
3	Social Media website	2
4	Any website	2
5	Institutional Repository	1
6	Open access repository	1
7	Pre print server	1
8	Arxiv	19
9	RePec	7
10	Pubmed Central	2

#### Table 2: Location for hosting Pre-Print Version

#### **Post Print Version of Publication**

3.24% journals were not allowing for post print archiving as indicated in the table 3. Nineteen (19) journals were permitting post print archiving with restrictions. 84.41% (130 journals) allowed for post print archiving.

# Table 3: Number of Journals permitting selfarchiving of Post Print Version

Post print Archiving	No. of Journals	Percentage (%)	
Allowed	130	84.41%	
Allowed with	19	12.33%	
restrictions			
Not allowed	5	3.24%	

## **Embargo Period for Post Print Version**

The table 4 shows that of these 130 journals, 50 journals mentioned embargo period. 27.69% journals of 130 journals mentioned embargo period of 24 months and 3.84% journals mentioned embargo period of 12 to 48 months and 6.92% journals mentioned embargo period of 12 months. 38 journals mentioned location along with embargo period.

Table 4:	Embargo	Period	for	Post	Print
	Ve	ersion			

Sl. No.	Embargo Period	No. of Journals	Percentage (%)
1	12 months	9	6.92%
2	24 months	36	27.69%
3	12 to 48 months	5	3.84%

#### Location for hosting Post-Print version

As indicated in the table 5, further it was found that most preferred location for hosting post print was personal website of author followed by open access repository after embargo period and Institution or subject based repository after embargo period. Embargo period for post prints ranged from 12 months to 48 months.

# Table 5: Location for hosting Post-Printversion

Sl. No.	Location	No. of Journals
1	Personal Website	24
2	Open Access repository after embargo	21
	Period	
3	Employer website	1
4	As per funding agency rule on funder	3
	designated repository or Institutional	
	repository after embargo period	
6	Any website	1
7	Institution and subject based repository	10
	after embargo period	

#### **Publisher Pdf Version of Publications**

The table 6 indicates that 75.32 % journals are not allowing uploading of publisher pdf. For one journal it was unclear. 37 journals are permitting for uploading publisher pdf. Six journals are allowing uploading of publisher pdf with restrictions.

# Table 6: Number of Journals permitting selfarchiving of Publisher Pdf Version

Publishers Pdf Archiving	No. of journals	Percentage	
Allowed	37	24.02%	
Allowed with	6	3.89%	
restrictions			
Not allowed	116	75.32%	
Unclear	1	0.6%	

#### **Embargo Period for Publisher Pdf Version**

As indicated in table 7, only 3 journals are mentioning embargo period of 12 months, whereas, two journals are mentioning embargo period of six months only if it is required by funding agency. One journal mentions embargo period of 36 months. Embargo period for publisher pdf ranged from 6 months to 36 months.

## Table 7: Embargo Period for Publisher Pdf Version

SI. No.	Embargo Period	No. of Journals
1	6 months	6
2	12 months	3
3	36 months	1

## Paid Open Access option

"Some publishers are now offering an optional arrangement for articles, whereby they offer enhanced visibility of the final article through facilitating some form of free-to-view archiving. Typically this involves a substantial additional fee, which may or may not be included in research costs" (About SHERPA/ROMEO). 18 journals in the list were open access journals. 120 journals allowed for paid open access option.

## **Classification of Journals according to Romeo Colors**

SHERPA/ROMEO has used different colors to highlight the self archiving policies of the journals. Different colors mentioned by them are as follows. As indicated in table 8, it was found that 132 journals were green, 13 journals were yellow and 8 journals were blue in color. Only one journal was white in color. This reveals that 153 out of 154 journals allowed for some form of archiving.

Table 8: Classification of Journalsaccording to Romeo Colors

ROMEO Colors	Archiving Policy	No. of Journals	Percentage (%)
Green	can archive pre-print and post-print or publisher's version/PDF	132	85%
Blue	can archive post-print (ie final draft post- refereeing) or publisher's version/PDF	8	5.19%
Yellow	can archive pre-print (i.e. pre-refereeing)	13	8.44%
White	archiving not formally supported	1	0.6%

### General Conditions laid by publishers

Journals included in SHERPA/ROMEO gives a list of general conditions. A content analysis of general conditions as shown in the table 9 revealed that 115 common conditions were mentioned by different journals. Following table gives the prominent general conditions along with their frequency of appearance.

Analysis of the general condition revealed that these conditions are mostly related to following four categories

- Publisher version
- Acknowledgement of publisher version

Publisher's version/PDF cannot be used	116
Published source must be acknowledged	78
Must link to publisher version	64
Must link to publisher version with DOI	45
On a non-profit server	42
The publisher will deposit in PubMed Central on behalf of NIH authors	35
On author's personal website, institutional repository, subject-based repository or academic social network	35
Published source must be acknowledged with citation	27
Authors retain copyright	26
Authors must inform edit	
or of pre-print deposit	25
Author's pre-print must not have its copyright assigned to pre-print server	25
Author's pre-print must be updated with set statement once accepted	25
Author's post-print can be deposited upon publication	25
On author's personal website, employer's website, institutional repository, non-commercial subject	
repository, and Scholarly Collaboration Networks that have signed up to the Voluntary STM Sharing	
Principles	25
Publisher's version/PDF may be used	23
Publisher copyright and source must be acknowledged	20
Non-commercial use only	16

## **Table 9: General Conditions**

- Location where different versions of documents can be uploaded and
- Copyright

## Publishers wise self archiving policies

The SHERPA/ROMEO database has divided publishers into different categories like Associate organization, government publisher etc to understand who owns the copyright. It was found that out of 154 journals, for 46 journals publisher category was not mentioned and 18 journals were open access journals. Publisher category as shown in the table 10 was mentioned for 90 journals and these were broadly grouped into three categories i.e. Commercial Publisher, Society Publisher and University publisher. Commercial Publisher is a company that publishes for profit. Commercial publishers may both publish their own journals and publish journals on behalf of learned societies and other client organizations. They normally control the rights for their own journals, and may control the rights for the journals of client organizations. However, some client organizations retain their rights (About SHERPA/ROMEO)

It was found that out of 90 journals, 77 journals were published by commercial publisher and 74 journals were green, 2 journals were blue and 1 journal was yellow. Thus, it can be said that commercial publishers allow for pre print and post print archiving with restrictions, except for two journals which are not allowing pre print and post print archiving. Whereas, only three journals were allowing archiving of publisher pdf. Society publisher is a Society or organization publishing its own journals. Normally do not publish for other organizations, but may publish for subdivisions which could have separate rights (About SHERPA/ROMEO). It was found that 7 journals were published by society publisher, out of which 6 were green and 1 was yellow. Society publishers allow for pre print and post print archiving with restrictions. Out of seven journals published by society publishers, 6 journals are allowing archiving of publishers pdf.

University Publisher is a publishing house run by an educational institution. They may publish on behalf of 3rd party organizations. University publishers often operate the same way as commercial publisher, but are owned and controlled by an academic institution. They may just publish journals from their own institution. They may also publish journals on behalf of learned societies and similar client organizations. Client organizations usually retain their rights. It was found that 6 journals were published by society publisher, out of which 5 were green and 1 was yellow. University publisher allow archiving of pre print and post print with restrictions but publishers pdf archiving is not allowed. Thus, it can be concluded that irrespective of publishers' category, almost all publishers allow for pre print and post print archiving with restriction, but archiving of publisher pdf is restricted.

SI. No	Type of Publishers	No. of Journals	Pre Print	Post Print	Publishers Pdf	Paid open access	Romeo Color
		73	Yes	Yes	No	Yes	Green
	Commercia						
	1	2	No	No	Yes	Yes	Blue
	Publisher			Yes with			
		1	Yes	restrictions	No	Yes	Green
				Yes with	Yes with	Not	
1		1	Yes	restrictions	restrictions	mentioned	Yellow
						Not	
2	Society	6	Yes	Yes	Yes	mentioned	Green
	Publisher			Yes with			
		1	Yes	restrictions	No	Yes	Yellow
3	University	5	Yes	Yes	No	Yes	Green
	Publisher			Yes with			
	i dombnor	1	Yes	restrictions	No	Yes	Yellow

# DISCUSSION

Self archiving is a boon provided to different researchers and authors by the way of open access. This study has revealed that different versions of publications i.e. pre print and post print can be self archived with restrictions. Publishers are more restrictive about uploading publishers' pdf. Embargo period was mentioned for archiving of post print and publishers pdf archiving. This embargo period ranged from 12 to 48 months for post print and 6 to 48 months for archiving publishers' pdf. Preferred location for archiving was found to be open access subject repositories, institutional repositories and author's personal website. Findings of this study correlates with findings of Emery (2018), Laakso (2014) and Rousi (2018). It was found that 85% of journals included in the study were green in color which means that author can archive pre print and post print or publisher pdf. 8.44% of journals were yellow in color; these journals allowed archiving of pre print only. One journal was white in color, as it was not supporting self archiving. 5.19% journals were blue in color as it supported post print archiving.

Analysis of general conditions revealed that, they were mainly related to the instructions regarding publisher version, location for uploading articles and copyright. The study has also shown that the belief that most of the commercial publishers do not permit self archiving is a myth. Publisher wise self archiving policy revealed that majority of journals allowed for pre print and post print archiving with some restrictions. Whereas, only few publishers permitted publisher pdf archiving. 77.92% journals were permitting paid open access facility for the authors. It was also found that out of total 300 journals mentioned in the UGC list, self archiving policies of only 154 journals could be obtained. Whereas, policy of journals can be obtained by visiting their website, it was found that most of the time their policy are unclear and vague. The results of the present study suggest that self archiving is allowed by publishers. Copyright is also not barrier for self archiving (Coleman, 2007). Still many researchers feel that pre print archiving can lead to stealing of their data by competitors. Journals will also not publish articles which are already published in open access repositories. (Bourne et al., 2017) (Kaiser, 2017). Copyright and intellectual property is also a major challenge for self archiving.

Thus, it is necessary to employ different strategies to overcome the challenges and increase the awareness among the researchers. Outreach and education, institutional mandates and increasing the visibility and findability of repositories are some of the methods through which self archiving can be increased (Grundmann, 2009). A report by Confederation of Open Access Repositories (COAR) describes different practices for populating repositories by way of promoting the benefits through advocacy, providing metrics of research publication and developing institutional mandates and policy. Report also suggested integrating repository services with institutional services like research information system etc. Mediation through implementing tools, workflow and agreements that ease and simplify the process (Repositories, 2013)

# CONCLUSION AND RECOMMENDATIONS

It can be concluded that authors, professionals and researchers in library and information science field should adopt the self archiving policies of the journals in UGC approved list of journals. They should self archive the articles published in these journals on preferred location mentioned by the journal. Based on the research findings it can be recommended that

• Authors can take advantage of self archiving if they are made aware about the benefits of self archiving. Authors, professionals and researchers can be made aware by organizing different promotional events like workshops, conferences and seminars by institutions.

- Institutions can also collaborate with the publishers to make author and researchers aware of the publishers' policies and copyright.
- Institution should also develop mandates which will enhance self archiving in the institutional repositories. Institution can also promote self archiving through research grant policies. Wherein it can be made mandatory for grant recipient to publish research material in open access.
- Librarians and libraries play an important role of mediator in self archiving. They can educate researchers and authors on different skills like copyright, publishers' policy and resources like SHERPA/ROMEO. They can also orient authors and researchers about the benefits of institutional repository and self archiving.

# REFERENCES

- Ahmadi, A., & Nazim, M. (2017). Self-Archiving practices by Library and Information Science Professionals in India. *Journal of Indian Library Association*, 53(2 & 3), 101-113.
- 2. Antelman, K. (2006). Self-archiving practice and the influence of publisher policies in the social sciences. *Learned Publishing*, 19(2). 85-95.
- Bailey, C. W. (2006). What is Open access? N. Jacobs (Ed.). Chandos Publishing.
- Bergstrom, C. T., & Bergstrom, T. C. (2006). The Economics of Ecology Journal. *Frontiers in Ecology and the Environment*, 4(9), 488-495.

- 5. Bourne, P. E., K., P. J., Vale, R. D., & Kiley, R. (2017). Ten simple rules to consider regarding pre print submission. *PLOS Computational Biology*, 13(5). e1005473. https://doi.org/10.1371/journal. pcbi.1005473
- Chaudhuri, J., & Baker, S. (2015). Identifying Open access articles within the Top Ten Closed Access LIS Journal: A global perspective. *Library Philosophy and practice* (e-journal).1245. http:// digitalcommons.unl.edu/libphilprac/1245
- Coleman, A. (2007). Self-archiving and the Copyright Transfer Agreements of ISI-ranked library and information science journals. *Journal of the American Society for Information Science and Technology*, 58(2), 286-296.
- Emery, J. (2018). How green is our valley?: five-year study of selected LIS journals from Taylor & Francis for green deposit of articles. *Insights*, 31(23).1-9.
- Fry, J., Probets, S., Creaser, C., Greenwood, H., Spezi, V., &White, S. (2011). Peer behavioral research: Authors and users vis à vis journals and repositories (Final report). http://www.peerproject.eu/fileadmin/media/ reports/peer\_D4\_final\_report\_29sept11.pdf
- 10. Gadd, E., Oppenheim, C. & Probets, S. (2003).
  RoMEO Studies 4: An analysis of journal publishers' copyright agreements. *Learned Publishing*. 16. https://doi.org/10.1087/095315103322422053.
- 11. Gadd, E., Covey, D. T. (2017). What does "green" open access mean? Tracking twelve

years of changes to journal publisher selfarchiving policies. Loughborough University. Journal contribution. https://hdl.handle.net/ 2134/21555

- 12.Grundmann, A. (2009). Increasing self archiving of faculty publications institutional repositories. *Open and Libraries Class Journal*, 1(2). available at: http://eprints.rclis.org/13732/1/Grundmann\_Repositories.pdf
- 13. Hanlon, A., & Ramírez, M. (2011). Asking for permission: A survey of copyright workflows for institutional repositories. *Portal: Libraries and the Academy*, 11(2), 683-782.
- 14. Harnard, S. E. (2004). The access impact problem and green and gold roads to open access. *Serials Review*, *30* (4). 310-314
- 15.Hassall, C. (2012). Going green: Self archiving as a means for dissemination of research output in ecology and evolution. *Ideas in Ecology and Evolution*, *5*, 93-98.
- 16.Kaiser, J. (2017, September 29). Are Preprints the future of biology? A survival guide for sicenctists.https:// www.sciencemag.org/news/2017/09/arepreprints-future-biology-urvival-guidescientists
- 17. Koos, J. A. (2019). Green deposit rates in LIS Taylor & Francis Journals: Are librarians "practicing what they preach?". *Evidence Based Library and Information Practice*, 14(2), 137-139. https://doi.org/10.18438/ eblip29560
- 18.Laakso, M. (2014). Green open access policies of scholarly journal publishers: a

study of what, when, and where self archiving is allowed. *Scientometrics*, *99* (2), 475-494.

- 19. Lercher, A. (2008). A survey of attitudes about digital repositories among Faculty at Louisiana State University at Batan Rouge. *The Journal of Academic Librarianship, 34* (5), 408-415.
- 20. Melero, R., & Rodriguez-Gairin, J. M.G. (2014). Journal author rights and self-archiving: the case of spanish journals. *Learned Publishing*, 27(2), 107-120.
- 21. Miguel, S., Chinchilla-Rodríguez, Z., & Moya-Anegon, F. (2011). Open access and Scopus: A new approach to scientific visibility from the standpoint of access. *Journal of the American Society for Information Science and Technology*. 62. https://doi.org/ 1130-1145. 10.1002/asi.21532.
- 22. Oppenheim, C., Greenhalgh, C., & Rowland,
  F. (2000). The future of scholarly journal publishing. *Journal of Documentation*, 56(4), 361-398.
- 23.Pinfield, S. (2005). Self archiving publications (G. E. Gorman, & F. Rowland, Ed.). International Yearbook of Library and Information management 2004-2005: Scholarly Publishing in an electronic era. Facet.
- 24. Conferderation of Open Access Repositories. (2013). Incentives, Integration, and Mediation: Sustainable practices for populating repositories. https://www.coarrepositories.org/files/Sustainable-bestpractices\_final2.pdf
- 25.Rousi, A. (2018). Analysis of the selfarchiving policies of journals in the highest rank category of the Finnish journal

classification system withincomputer science, physics and electronic engineering. *Informaatiotutkimus*, 37(1), 56-70.

- 26.SHERPA/ROMEO. (n.d.). SHERPA/ROMEO. http://sherpa.ac.uk/romeo/about.php? la=en&fIDnum=|&mode=simple
- 27. Singsona, M., Sevukan, R., & Marugaiyan, M. (2015). Author self- archiving and licensing policies of open access library and information science journals: A study. *Annals of Library and Information Studies*, 62, 104-109.
- 28.Swan, A., & Brown, S. (2005). Open Access self archiving: An introduction. Key Perspectives Limited.
- 29. Watson, S. (2007). Authors' attitude to and awareness and use of university institutional repository. *Serials: The Journal for the Serials Community, 20*(3). 225-230.
- 30. Way, D. (2010). The Open Access Availability of Library and Information Science Literature. Articles. 6. http://scholarworks. gvsu.edu/library\_sp/6

\*\*\*