## Assignment #1 : Critique on SNU Open Repository

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An institutional repository(IR) is an archive in which research institutes such as universities store, preserve and disseminate digital copies of the intellectual research materials of members of the institution in electronic form for free. Open access, which emphasizes access and use rather than the archive concept of storage space, is emphasized, and more and more institutions are now building IR because it can relieve copyright problems, be constructed easily, and costs low.

DSpace is an Open Access Self-Archiving System co-developed by MIT and HP that is used as an institutional repository for collecting and sharing intellectual products by more than 400 universities/laboratories worldwide. It is the most commonly used system worldwide and is easy to install and customize because it is Free Open Source Software. It can be used anywhere in educational institutions, governments, individuals, and commercial institutions and can manage and preserve all types of digital materials, including text, images, audio/video, and datasets.

S-Space, which I would like to analyze in this article, is Seoul National University's unique DSpace operated by its library, and it was developed in 2008. Any member of SNU can use and register materials, including copyrighted papers or post-published papers, conference materials, research materials, project reports, journals published by the university  $\cdot$  department  $\cdot$  research institute, theses, dissertation, lecture notes, and undergraduate research materials. You can self-archive directly on S-Space or request the repository manager to register by e-mail. Self-archiving is performed in this following order; SNU member login > metadata entry and file upload > consent to open access > administrator approval (metadata supplementation and copyright policy verification) > registration completed and searchable.

According to the user guide provided by S-Space, the goal and necessity of this site are as follows. (1) It expands the visibility and accessibility by enabling search and use through various websites such as S-space and Google. (2) The number of citations of papers is increased by expanding the visibility of data through the web. (3) Grant permanent URLs so that academic materials can be permanently preserved. (4) S-Space maintains its own backup and system for resources, perpetuating the safe storage of data. (5) It enables broader research by sharing research contents with the school members and the community.

As Schmitz highlighted "Understanding users is a pathway to sustainability", it is surely important to analyze intention of users. The users of IR can be largely divided into three groups; authors who provide papers in this archive, researchers and the public who want to find references, and managers who manage this IR's database. Among these, the user group that you should pay particular attention to is researchers, students, professors, and public group who want to visit this website to search, explore and find various materials. Everyone can be a user of this site regardless of gender or age group. You can visit the site to find a prior study of the subject you want to study, to read your colleague or professor's thesis, or to just browse to get inspiration for the study. Each has a different purpose, but one thing is certain: they all have a strong passion for some field of study and a desire to search for and explore materials about it. And I could say that usefulness, usability, findability, credibility, desirability, accessibility, value are key factors for these users.



Then, let's begin with analyzing the information architecture of S-Space and find some problems that need improvement. First of all, S-Space uses Top-Down approaches, which uses categories to group pages and applications throughout the site. Additionally, a systematic se t of labels is designed and used to represent the site's content. In order to facilitate mo vement throughout the site, strategic navigation and a search systems are tailored to the predetermined goals and implemented. Word(labels, sections, etc.) choices, images, graphi cs, layout, grids, placement and other IA components are created and arranged in metho ds that best anticipate users' major needs. In S-Space, its construct structure aims to ans wer users' questions such as these; (1) Where am I? (2) I know what I'm looking for; how do I search for it? (3) How do I get around this site? (4) What's important and u nique about this organization? (5) What's available on this site? (6) What's happening th ere? (7) How do I engage with them via various other popular digital channels? (8) Ho w can I contact a human? (9) What's their address? (10) How can I access my account ? In details, you can clarify where you are by 'S-Space' tab which is the metaphor normally takes you back to the introductory interface. Also, through search box and category(organization), you can solve the second and third questions.

S-Space expresses the identity of the website in a variety of ways. These include data visualizations such as "items type", "top keywords", and "mostly artworks posted", popular communities, highly constrained researchers, and top downloaded papers. Currently, the main page of this website does not provide any meaningful information to users. These data visualizations or statistical data should be placed separately on pages describing this website so that only those who need it can access it. As I mentioned above, institutional repository emphasizes access and use rather than archiving. What is regrettable here is that the categories based on topical organization should be adjusted a little more noticeably, and the search box should also be larger, centered, and at the same time enabling detailed searches, allowing users to find the resources they want faster. The former, category modification will make browsing easier, and the latter, search system supplementation will make it easier to find accurate data through search.

The labeling system seems to have made appropriate word choices that everyone can understand. By the way, the search system seems to have a lot to improve. The search system is vital because the purpose of visiting S-Space that each person has is different. You may be aware of the subject or purpose you want to find, but you may not know exactly what data you need, or on the contrary, you may know exactly what resource you want. Therefore, it is essential to establish a system that can accommodate such a wide range of information search purposes. Especially, it is urgent to enable a detailed search, which is possible through various starting points such as author, resource type and topic and various languages. All that is possible on the currently deployed search system is giving users criteria to sort results after searching, and to filter search box that can be searched through the ISSN, which can be sufficiently searched in the main search box, also it confuses users. It should be combined with main search box through detailed search. In addition, the construction of a search system, which began with text search centered on research papers and data on studies, has recently expanded from structural data-oriented search to non-structural data-oriented search such as document search, web search, and multi-media search. In order to efficiently find the desired information among the numerous fields of data indiscriminately and vastly spread on the web, the system should be developed so that the data can be classified in a standardized form according to guidelines and searched efficiently. In other words, new values should be created through interconnection and sharing between data. And metadata is the key. Metadata is "data that provides information about other data", but not the content of the data, such as the text of a message or the image itself. In other words, it is data that structures the attributes of data on a network and describes content, format, management, and location identifications through its structure. A common commitment to the meaning and expression of information resources is needed, and it is essential for ease of search and management. However, S-Space shows that it is not even able to perform the basic role of metadata.

ය-	(1)	🕰 17세기 네덜란드 회화	(1)	🕾 A Ram Hong	(1)
🕾 A Reum Kim	(1)	A Yeong NOH	(1)	🕾 A-Rang Won	(1)
오 aa	(1)	🕰 aaaa	(1)	🕾 Aaltonen, Kirsimari	(2)
🕰 Aaram J. Kim	(1)	🙎 Aarnio, Karoliina	(1)	🕰 Aaron Breivogel	(1)

You can check the classification according to the author through the "Authors" tab. However, as you can see in the picture, it can be confirmed that non-author names such as '-', 'aa' and 'aaaa' belong to this classification. Even the '17세기 네덜란드 회화(17th century Dutch painting)', which should be classified as a subject, belongs to the author classification.

Browsing by	Author	17세기	네덜란드	회화
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2022	<b>야코뷔스 프렐의 '어린 아이의 환영' 이미지: 멜랑콜리와 애도</b> 서정수	view file link	

If you access it, you can see there is a work that is written by '저정수(Jeong-soo Seo)', which is completely contrary to '17th Century Dutch Painting.'

야코뷔스 프렐의 '어린 아이의 환영' 이미지: 멜랑콜리와 애도 Jacobus Vrel's Imagery of a Ghostly Child: Melancholy and Mourning

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• Authors	서정수	
• Advisor	신준형	
• Issue Date	2022	
• Publisher	서울대학교 대학원	
• Keywords	야코뷔스 프렐 ; 멜랑콜리 ; 환영 ; 추모 문학 ; 요스트 판 덴 폰델 ; 17세기 네덜란드	

'17th century Dutch' seems to be one of the keywords in this work. Even if the author entered it incorrectly when self-archiving, the administrator or management system of the site should correct it. It seems inevitable to construct metadata that is easy to input and manage.

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Lastly, the size and arrangement of category and search box that I pointed out above are also problems in the navigation system. The biggest problem is that it is wasting space on the web page by providing unnecessary information as a whole, and reducing the effectiveness of services to be provided in the right place. One more thing I would like to point out here is the phrase "Welcome to S-Space". It seems unnecessary to mention it again because it already provides global navigation at the top of the page.

	S-Space SNU Open Repository		About > 🖆 🛔
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Communities & By Date	Titles	B C Subjects	Guide
Top Communities and Collections	Top Downloads for One Month	Recently	/ Added
Notice / News		Self-Archiving	다. 매뉴얼 & FAQ

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The above image is my suggestions for an improvement of S-Space that corrects and supplements the problems. First of all, the S-Space logo in the top center is a metaphor that allows users to easily return to the first page of the homepage and notifies which website they are on. Through the 'About' tab on the right, you can check the purpose, history of this website and statistics related to resources in S-Space. The search box just below is larger than before one and has various functions. Through 'Advanced Search', users will be able to perform a more accurate search by specifying the details and criteria they want. The previous category at the top was placed under the search box, and the labeling was changed to icon labels. By using vector, it was made easier for all users of all ages to understand. Previously, it was possible to check how to use this site through the 'About' tab and what procedures can be used to register works in S-Space, but in this improvement plan, this will be performed through the 'Guide' tab. In my opinion, 'About' tab is a technical expression for this website, but it is not enough labeling to explain how to use it. In addition, the 'repository' would not be familiar to the public yet, so I think it is necessary to fully explain how to use it and to check it as soon as users accessed the site. Below, the main space of this page is composed of the contents that the user may need and be curious about. One unique thing is the "Self-Archiving" tab. As I reiterated, IR also functions as an archive, but it is also a

system that serves as a digital library that provides users with easy access to it. Of course, although S-Space is not currently an easy-to-use space for resources, it has added tabs to make it easier for authors to register as open-access papers because they are not even performing the functions of archives properly.

So far, I proposed the improvement for S-Space and it was based on problems, such as insufficient search system, useless organizational structure, absence of metadata scheme, and etc. Certainly, there is not enough institutional repository of university library in Korea, therefore Seoul National Library's attempt to construct its own IR seems like a big progress in this field. However, there is still a lot to consider and improve, and I am truly sure that we can establish the best institutional repository and the other open access systems.