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To whom it may concern:

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What is K-MOOC?
The Direction for K-MOOC in the New Normal Era

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Abstract

K-MOOC stands for Korean Massive Open Online Course, and was created by South Korea's Ministry of Education and the National Institute for Lifelong Education in 2015. MOOC enables anyone with a device with internet connection to gain access to quality education at a time and location that is of the convenience of the user. Due to COVID-19, the number of individuals who registered for classes in MOOC platforms has increased by 78% in 2020 compared to 2019. K-MOOC has a comparative advantage over other popular MOOC platforms such as Coursera when it comes to the South Korean market as many courses are taught in Korean. Nonetheless, despite this added benefit, the majority of South Korean college students do not utilize K-MOOC. This paper aims to detect the pain points that K-MOOC has when it comes to the user experience, particularly in the perspective of the MZ Generation in Seoul, and also present suggestions to ameliorate the user experience of the platform.

Keyword

MOOC, K-MOOC, MZ Generation, New Normal, User Experience

1. Introduction

1.1. What is MOOC?

Recently, Massive Open Online Courses (MOOCs) have emerged as an online open learning space. MOOCs are an open online learning space based on unconstrained interaction among learners unlike traditional e-learning systems since MOOCs can take place at the pace, time, and location comfortable to the user [1, 4]. MOOCs have emerged as a viable alternative against conventional means of pursuing education with the development of Information and Communication Technology (ICT); popularity and interest regarding the platform has increased as the service allows learners to access quality learning materials at a low cost. Numerous civilians use MOOCs to learn for a variety of reasons that include, but are not limited to the following: academic preparation for college, career development, changing careers, lifelong learning, corporate eLearning & training, and more [2, 3].

1.2. Research Goals

The main aim of this paper is to collect and analyze the perceptions of MZ Generation college students regarding K-MOOC in the context of South Korea in order to comprehend why the usage of K-MOOC is low.

Moreover, this research aims to identify means that could improve the user experience of K-MOOC to increase the user traffic of the platform since the usage of the platform could contribute to a higher number of access to quality education in the new normal era brought about due to COVID-19.

The procedures and outcomes of this research are the following:

- Convene user perception on K-MOOC
- Detect user pain points regarding K-MOOC
- Suggest improvements that could be made regarding the user experience of K-MOOC

2. Methods

A survey and interviews were conducted from November 1, 2020 to November 10, 2020 in order to convene data to understand pain points and improvements that could be made on user experience regarding K-MOOC.

2.1. Survey

A survey via Google forms was conducted on a total of 89 South Korean MZ Generation individuals to investigate the user perceptions of K-MOOC.

2.2. Recruiting

A total of 11 participants, 6 males and 5 females, that do not actively utilize MOOC or K-MOOC platforms were recruited to be interviewed. All of the interview participants are South Korean students of an age that falls into the spectrum of the MZ Generation. MZ Generation college students in South Korea were specifically recruited for this research as COVID-19 increased interest regarding

online education. The backgrounds of the participants were diversified so that we could gain a more comprehensive viewpoint on the user experience of K-MOOC. For example, all of the participants attend a different college from one another, and the forms of the colleges that they attend vary as well; some attend private universities while some utilize the credit bank system as an alternative to substitute for a conventional college education. More insight was able to be gained as the participants offered unique perspectives based on their background.

2.3. Interviews

11 interviews were conducted on 11 different individuals in the form of a cognitive walkthrough. Their behavior on the platform was observed and questioned in order to understand why the users implemented the actions that they did. Each session lasted approximately 30 to 40 minutes each, and the users were encouraged to voice any discomfort regarding the usage of the platform during the interview.

3. Findings

The following are the findings that were collected based on the survey and interviews conducted.

3.1. Survey Results

Table 1. % of MZ Generation South Korean college students who heard about K-MOOC before

Q1. Have you heard about K-MOOC before?	
Yes	No
55.6%	44.4%

Table 2. MOOC platforms that MZ Generation South Korean college students heard about before in ascending order

Q2. Which MOOCs have you heard about? (Multiple choices were allowed)	
Coursera	58.9%
Khan Academy	50.7%
K-MOOC	43.8%
edX	20.5%
Udemy	12.3%
BitDegree	8.2%
Bloomberg	1.4%

Table 3. 4 main benefits of MOOCs listed in ascending order

Q3. What is the biggest benefit of MOOCs?	
Easy access regardless of time and location	68.9%
Low price	13.3%
Certificate achievement	8.9%
Quality education	8.9%

Table 4. % of MZ Generation South Korean college students that agreed that COVID-19 increased their interest in MOOCs

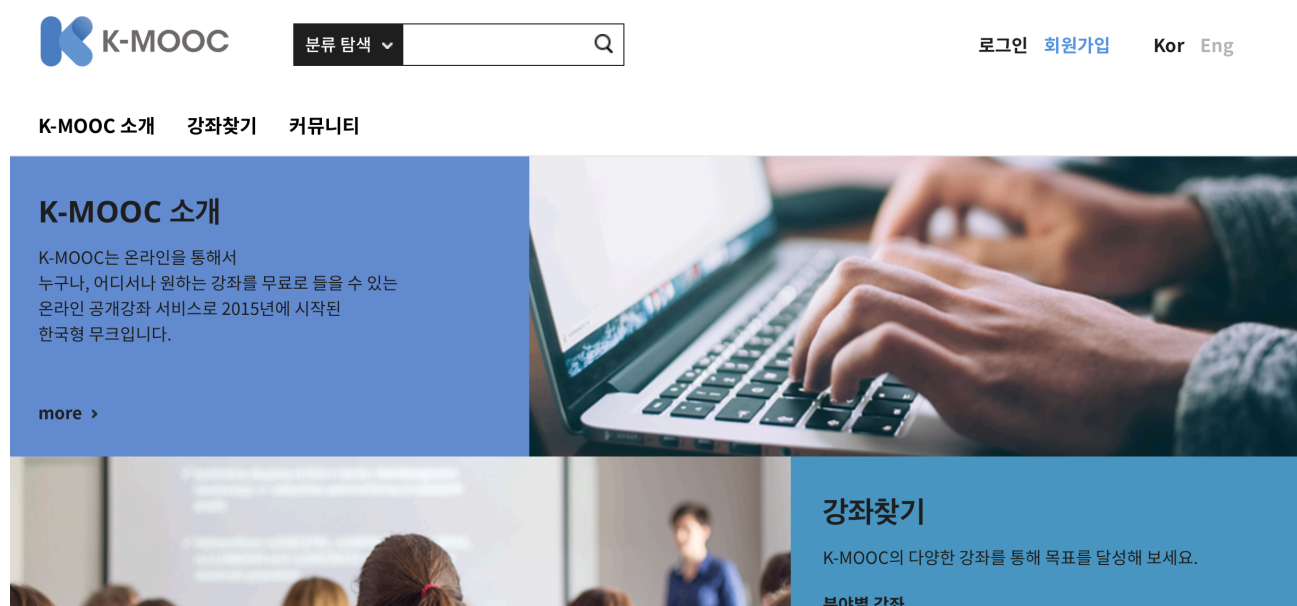| Q4. Did the COVID-19 pandemic advance your interest in MOOCs?	
Yes	85.9%
No	14.1%

Image 1 Main page of K-MOOC's website (www.kmooc.kr)

3.2. Unrefined Interface

Users voiced that the user interface of the website had an unrefined feel that made the platform appear less credible.

There is a lack of consistency when it comes to the visual elements used in the interface. As seen in Image 2, (1) is a solid color while (3) is a gradient color, which renders an unprofessional ambience that lowers the credibility of the interface according to users.

Moreover, users voiced that the lack of unity amongst the symbols used within the platform also decreases the level of credibility of the service. (3) uses color to symbolize the status of the user, while (4) uses a comparatively complex symbol that is not that relevant to the text written to the right of it. The symbol that is the shape of a bell for (4) is usually used in the context for notifications according to users, which rendered them confused as the text on the right says "Course Introduction" in Korean.

The misalignment of visual elements within the platform also rendered the users to voice that the platform lacked a professional feel. As seen in (5) of Image 2, the symbols that mostly signal SNS items are misaligned, which made a user ask whether the platform was in a "beta version."
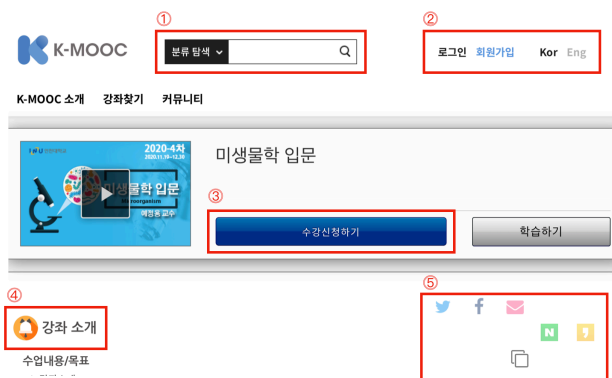

Image 2 Course screen of K–MOOC

3.3. Unnecessary Layers of Navigation

When the users click on one of the main categories that are on the main page, a submenu layer appears that disappears when the users hover their mouse away. This kind of user interaction was voiced as uncomfortable by the users as they have to unnecessarily click another depth of layers in order to proceed to the courses, which is what they are expecting to gain access to when they clicked the main layer. Users stated that they would like to see the courses, which is the main reason they visit MOOCs instead of a submenu as all of the

participants stated that they would like to be able to categorize the courses after they see the courses first as the MZ Generation is more used to browsing the content before they view the subcategorization.
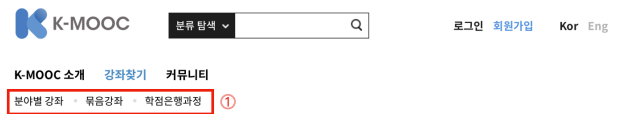

Image 3 Submenu layer of K–MOOC

3.4. Unfriendly Mobile Interface

Overall, the mobile interface environment was not not unified and unorganized as well, which is critical as the MZ Generation usually takes a considerable amount of their online activity via their mobile device. The lecture introduction formatting was different for each education provider, which gave the impression that the service is unfinished. On the lecture description page, some images were cut off as the interface is not fully responsive to adapt to various interface dimensions. Because of the phenomenon of the images and tables being cut off when the mobile phone is viewed in landscape mode, it showed a mobile interface with poor completion, such as the text overlapping on the surface.

As seen in (1) in Image 4, the overlapping of text occurs as the interface elements are not fully responsive to the dimensions of mobile interfaces; such factors could greatly influence the usage of the platform as a participant stated that the occurrence made the platform seem like it was malfunctioning.
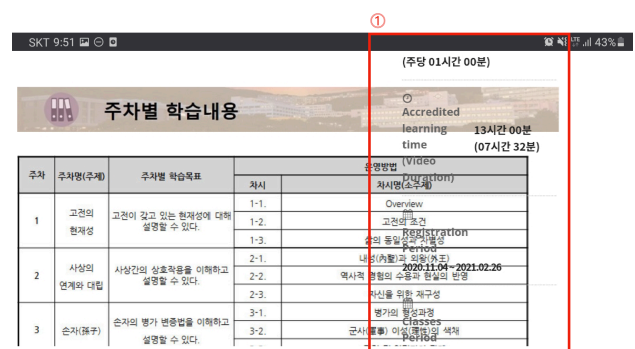

Image 4 Upper part of the mobile interface of K–MOOC

4. Discussion

4.1. Refining the Interface

The K–MOOC website can be refined by unifying the design language as an interface with solid colors. This can make the design of the website look more professional and underline the credibility of the South Korean Ministry of Education and National Institute for Lifelong Education. The colors can also have a unified blue and white theme as the logo of

K-MOOC is blue. Having a theme would make the website have a uniform look that can differentiate itself from other MOOC platforms.

Symbols can be improved by placing representational symbols that reflect the content; they can also be eliminated if deemed unnecessary for a minimalistic look that is less confusing for the users.

The website can also align and size its contents to make the website look more organized and easy to navigate. By having fixed points within the website and organizing it based on those points, the website can be vertically aligned and have a clean interface.

4.2. Simplifying the Navigation Experience

The MZ generation stated that the complicated layers of navigation, rather than providing more options for users to search lectures, became a hurdle to effectively browse lectures. This can be fixed by eradicating options for the navigation bar throughout the website; the sub-menu layer can be erased to direct users to a page that shows all lectures with search settings.

This can further be improved by eliminating categories from the search settings. Currently the search settings are categorized by Topic, Sub-category, Interest, Koreanology, Period of Study, Language, Course Level, and Hosting Organizations. The first four can be unified into a single category.

The search settings can also be displayed on the top of the contents page rather than on the right so that users can have a birds eye view of the contents rather than having to vertically scroll through the page to take a look at all the settings.

Making all search settings collapsible will further enhance the browsing experience, as having search settings fixed on the screen at all times may disturb users from viewing its contents.

4.3. Improving the Mobile Interface

The fact that 69 percent of students who participated in the survey chose easy access regardless of time and location as the key benefit for MOOC stresses the importance of creating a solid mobile experience that is reliable and user friendly, as mobile devices are a key component for flexible studying times and location. K-MOOC can improve upon both its mobile website and application to look more professional. For the mobile website, K-MOOC can fix design flaws such as the one shown in 3.4.

K-MOOC can also have a customer service team that monitors the user experience in mobile application stores. For example, a review for improvement in the iOS App Store from March 24, 2020, was replied in October 8, 2020; this 7 month gap is not prompt enough to address issues users have pointed out with the interface. Improving customer service can improve the customer experience and the design of the mobile interface .

5. Conclusion

The benefits of K-MOOC, such as the access to quality education regardless of time and location, render it an ideal platform to utilize in the new normal era.

However, the platform should establish a visual system and develop a feel of consistency amongst the user interface elements as such attributes render an unrefined feel that lowers the credibility of the platform.

The platform can also create less layers for navigation and make the browsing experience simple, allowing more lectures to be accessible.

The platform should further adjust to mobile platforms as a significant portion of users utilizes mobile devices to learn. This will increase accessibility for existing users, and allow new users to discover the platform.

Acknowledgement

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