

In Search of an Effective Online Campus for Online-only Universities

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Abstract

This is an interim report on an investigation into the psychological and social problems of online campus life at online-only universities. The immediate goal of this research is to search for an effective communication platform for the online campus at Tokyo Online University (TOU), which has opened its doors to students in April 2018. Online technologies to connect people, such as SNS, virtual campuses using avatars, or MOOCs(Massive Open Online Courses), have met great difficulties in the context of online distance education. The guiding hypothesis of this research project is that there is a common humanizing factor that is lacking in these attempts. In order to throw light on this common underlying difficulty, a research project is currently under way. At this point, questionnaire and interview surveys were completed. The preliminary results of the analyses revealed that students have a dilemma between the desire to be connected to other students and the fear and anxiety to join SNS or online interactions. Although the analyses are still incomplete, it is expected that the results of this research will help other online-only universities as well.

Keywords: online campus, online student communication, distance education

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Introduction

Tokyo Online University (TOU) opened its doors to students in April 2018. It provides almost all of its courses online through its LMS (Learning Management System). It means that there is no physical campus where students can meet other students face-to-face. Last summer, the school started to provide an intra-SNS service called Yammer, a part of the school-wide Office365 subscription, in response to strong demands by students for online campus activities. Yet, the school encountered various problems and complaints, and the current situation seems to be far from satisfying the expectations by the students.

Many previous attempts to connect students through ICT(Internet and Communication Technology) such as blogs, SNS, virtual reality and avatars, or MOOCs, also met great difficulties. Still, virtual universities like TOU need some online technology to connect people, otherwise there will be no interactions among students. This is a serious and urgent problem for the school, and it might play an important role in the success of those online schools.

From Correspondence Education to Virtual University (VU)

Correspondence education started in the 1840s when the postal system in England was established. The next evolution was the broadcast system based on radio and TV. The Open University in Britain was the first to offer broadcasted-based education in 1971. Students do not need to attend brick and mortar schools anymore, and the tuitions are usually inexpensive compared to traditional schools. The term, “distance education,” came to be used around this time. It seems that new emerging technology has been quickly adopted in the field of education.

The trend is still alive with the Internet and Communication Technology (ICT). By the time World Wide Web(WWW) and the first browser became available in 1994, online courses on the Internet were already started. They are often called “Virtual University” or “Online University.” Since then we have seen new technologies, such as SNS, blogs, virtual world and avatars, and MOOC(Moocs: Massively Online Open Courses), being applied in the world of education. Now we are in the era in which people can attend classes online from anywhere in the world and get certificates of the course, usually without paying high tuition.

However, in a review paper on this issue (Oda et al., 2020), it was pointed out there seems to exist a cycle of the rise and fall of these technologies. Each technology was introduced to the world of education touted to bring an ideal mechanism of student interactions and collaboration. For each, there were research papers that confirmed positive effects on students. However, they have largely failed to meet initial expectations. To give just one example, George Siemens and Stephen Downes, the founders of the MOOCs movement, are expressing their disappointments in the following quotation;

“Moocs today...are quite different from the ones that Stephen and I developed. Our goal was to encourage the development of learners through open and transparent learning, where the process of knowledge generation was iterative – improving on the

ideas of other learners and generating new knowledge through continual...improvement.” (Parr, 2013)

Their expectation was that MOOCs would become the tool and environment to create a dynamic and organic student community, but they are not seeing it happening. It seems that there is an intrinsic difficulty to realize it in the context of online interactions using ICT.

Common Challenges to Online Education

One problem often cited among students in distance learning is the problem of isolation. Students of VU usually take classes alone looking at computer screens and they do not have friends sitting next to them whom they can ask questions on the meaning of a passage in the textbook or what the teacher just said. Lack of this environment may not seem important at first, but there are various reports that it is the source of a serious obstacle online education faces.

For example, Jones reported that isolation is a serious challenge for distance education (Jones, 2016):

Research by The Higher Education Academy (Park, 2008, p.16) found that 22% of distance learning students mentioned 'the risk of feeling isolated' as a challenge, reflecting findings that personal interaction is important for student learning (Ipsos MORI, 2007).

Many reports, including (Gillett-Swan, 2017) and (Croft et al., 2010), claim that isolation and lack of the social presence of teachers eventually lead to the lack of motivation of students.

The problem of isolation and solitude is something traditional ICT solutions did not look at seriously, not only in the field of education but also in applications for other purposes. Thus, the clues for the solution to this common problem in online education might be useful in other fields.

Research Goal

There is no question about the benefits of virtual or online in terms of the time and distance for commuting and costs involved. Still, it is also true that there are common problems outlined above.

Although the technology to connect people online has been available for some time, there is something missing in order to connect students in the sense the MOOCs founders envisioned. A possible hypothesis is that previous attempts to use various ICT technologies missed a “humanizing” viewpoint. The problem of isolation and anxiety while studying online with ICT tools is a prime example. And, other issues such as cultural orientations by students may be also involved.

The immediate goal of this project is to try to find out the problems at TOU and to propose some possible solutions. Thus, the overall goal of the project is two-fold:

1) Find out the current situation of online “campus life” at TOU:

2) Propose a suitable form of “campus life” at TOU, and a suitable platform and communication tools to support it.

This is a preliminary report focusing on the first part of the goal.

Methods

Although the project has a larger research design including data analysis of the intra-SNS, only the preliminary analysis results of the questionnaire and interview surveys are available at this time, and descriptions of methods are restricted to these portions.

Questionnaire survey

The goal of the questionnaire survey is to find out the current situation of students’ campus life and the use of communication tools. It was conducted using Google Form accessible from the school website. Although the access to the questionnaire form was restricted to TOU students and the login process was required, the survey itself was anonymous and the researchers did not have access to the login data. The questionnaire survey was notified on the school website at the beginning of September, and the online form was open in September through October in 2019. The number of registered TOU students at the time was roughly 1, 700 and the number of respondents was 70.

After the mandatory privacy notice section, it included 23 questions in total

Questions:

- Male/Female, Age range, Grade
- Questions related to solitude and anxiety
- Do you feel isolation or anxiety while studying online?
- In what situation?
- Questions on the SNS service
- Do you use SNS? Which SNS? How frequently?
- Do you know our intra-SNS (Yammer)?
- Since when? How did you know it?
- Do you use it? How often?
- How many groups do you join?
- Are you satisfied with the service?
- Reasons for yes/no answers
- Do you intend to use it from now on?
- Reasons for yes/no answers
- Will you be available for an interview

Interview survey

Interviews were conducted, in October and November 2019, for 12 students who agreed to the interview by responding to the last question of the questionnaire. The interview sessions were either in person or via Skype TV call. Two researchers attended each interview. One researcher took the lead in asking questions and the other researcher took detailed notes. The interview started with the same questions as the questionnaire, followed by conversations on more details. The session took about

30 to 60 minutes for each person. The sessions were recorded and the notes were matched against them for accuracy.

Results

Results of Questionnaire survey

Among 70 respondents for the questionnaire, there were 34 male and 36 female students. The breakdown of the age range is as follows:

Gender\Age	10s	20s	30s	40s	50s	60s	Total	Ratio
Female	0	6	13	11	6	0	36	51.40%
Male	1	6	9	14	2	2	34	48.6%

Table 1: Gender and Age range

The age range is widely distributed and the 30s and 40s are the most populous segments. This distribution fairly well represents the demographics of the student population.

Do you feel lonely while studying online?

When they were asked “do you feel lonely while studying online?”, eight students answered “always,” 19 students “sometimes,” 23 students “occasionally,” and 20 students responded “Never” (see Figure 1). In total, more than 70% of students expressed feeling solitude to a certain degree.

Do you feel lonely while studying online?

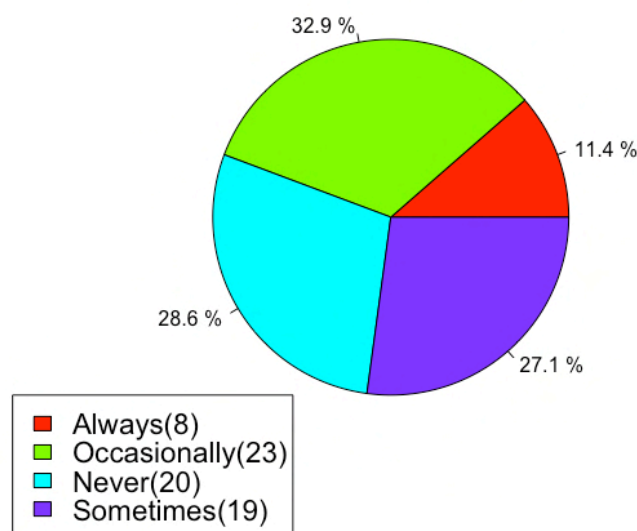


Figure 1: Solitude pie chart (n=70)

The next question further asked, “when do you feel lonely on your studying online?” The question had 4 answer options and an “Other” free-text answer field. The raw scores were as follows:

- | | |
|--|----|
| 1. When I felt I had nobody (on campus) to talk to | 12 |
| 2. When I realized that I had no friend to ask questions when I’m in trouble | 24 |
| 3. When I felt that there’s no friend to ask help for study. | 11 |
| 4. Never felt solitude | 20 |
- (See figure 2 for a pie chart)

The number of students who never felt solitude coincides with the number from the previous question. The “Other” answers included comments on the psychological barriers when students want to ask questions of instructors.

It is visible from these results that they are looking for somebody to talk to, friends to whom they can ask questions, or ask for help when they have some trouble while studying online. In traditional, physical classes, there are always fellow students that can fill this gap, so this is a unique situation for online or distance education classes. It can be also inferred that they feel psychological barriers to ask professors about what they think simple or casual questions on class or course materials.

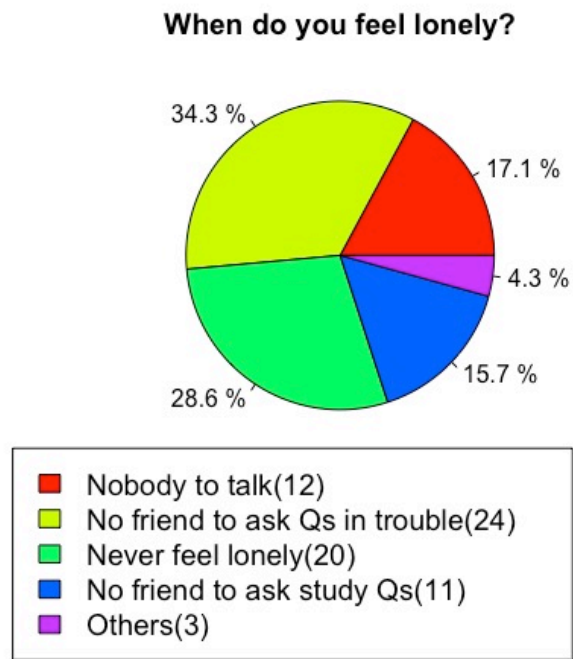


Figure 2: Situations in which students feel lonely (n=67)

Anxiety

For the question, “When do you feel anxiety while studying online?,” there were four answer options and an “Other” field in which respondents could input free text.

- | | |
|---|----|
| 1. When I don't know how my answers are evaluated (Was it correct?) | 23 |
| 2. When I feel enough information is provided | 24 |
| 3. When I realize that I cannot see other students or teachers | 9 |
| 4. When I realize that there are no direct interactions with other people | 7 |
- (See Figure 3 for a pie chart)

The “Other” responses included situations in which students have difficulties in specific classes.

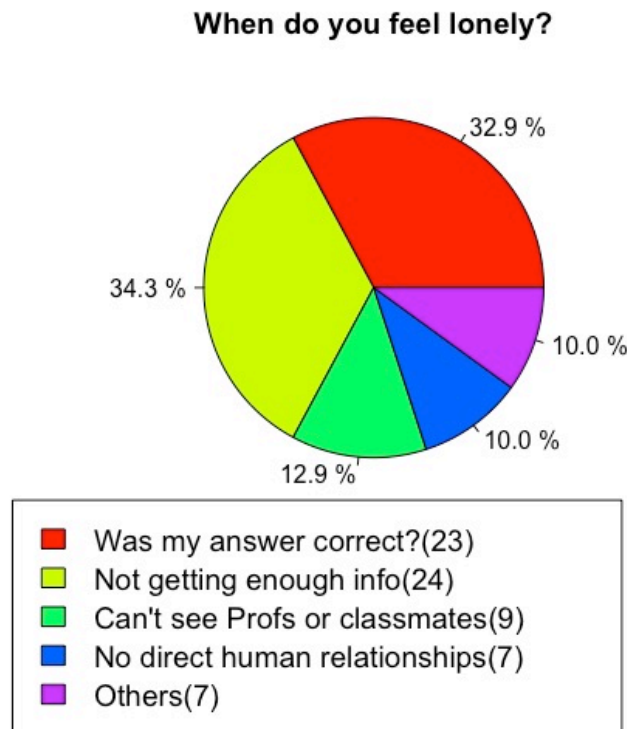


Figure 3: When do students feel anxiety (n=70)

From the results of the questionnaire survey, it possible to surmise that the lack of presence of friends who they can talk to and ask for help when they have study questions is one of the major sources of solitude and anxiety.

Questions on SNS services

The questionnaire asked a couple of general questions on the use of SNS, and five questions specific to the intra-SNS service (Yammer).

1. For the first question, 55 students out of 70 (79%) answered that they use some SNS service. As expected, popular services such as Twitter, Facebook, Line, or Instagram were mentioned in the free-form answer field.

2. There were five questions on the intra-SNS (Yammer). Among 55 students who responded to this question, 53 of them (96%) responded that they knew what Yammer was. But, for the following question about whether they are registered users of the service, only 42 students (79%) among 53 respondents gave an affirmative answer.

3. Frequency of use (n=42):

Less than once a month	13 (31%)
1 to 3 times a month	15 (36%)
1 to 6 times a week	11 (26%)
Every day	3 (7%)

Most people use a few times a month, and only a few percent of people visit the site frequently. Only 17 % of people responded that they were satisfied or mostly satisfied with the service. Only 17%(7) of the people who responded were eager to use it in the future, and 60%(25) said that they will use it if necessary.

These numbers suggest that Yammer is not particularly popular among students at TOU.

Results and analyses of the interview survey

A qualitative analysis was conducted employing the procedure called, “the KJ method,” invented by Kawakita Jiro, a Japanese cultural anthropologist¹. The analysis starts with the detailed notes taken during the interviews. Researchers jointly worked on this analysis.

Procedure of analysis with the KJ method

1. Notes are broken down into individual cards. One card contains only one observation. About 700 observations(cards) were extracted.
2. Similar cards are grouped into a group or category. Each category is given a descriptive label that represents the underlying theme of the cards included
3. Similar categories generated in the previous step are grouped together, and a descriptive label is assigned as before.
4. Step 2 & 3 are repeated until only a dozen or so categories remain.
5. Each category is turned into a graph to show the relationships among member categories and cards.

Several prominent categories were generated as the result of the KJ method analysis. The most noteworthy categories are described in detail below.

Solitude

- The “Solitude” category included various comments on “loneliness” or “feeling alone.” One representative comment in one of its sub-categories says, “I always feel alone online.”
- In another sub-category, many comments referred to loneliness because of the lack of people to talk to and organic human relationships on an online campus.

- The other sub-category points out the need for a place to ease solitude and share information.

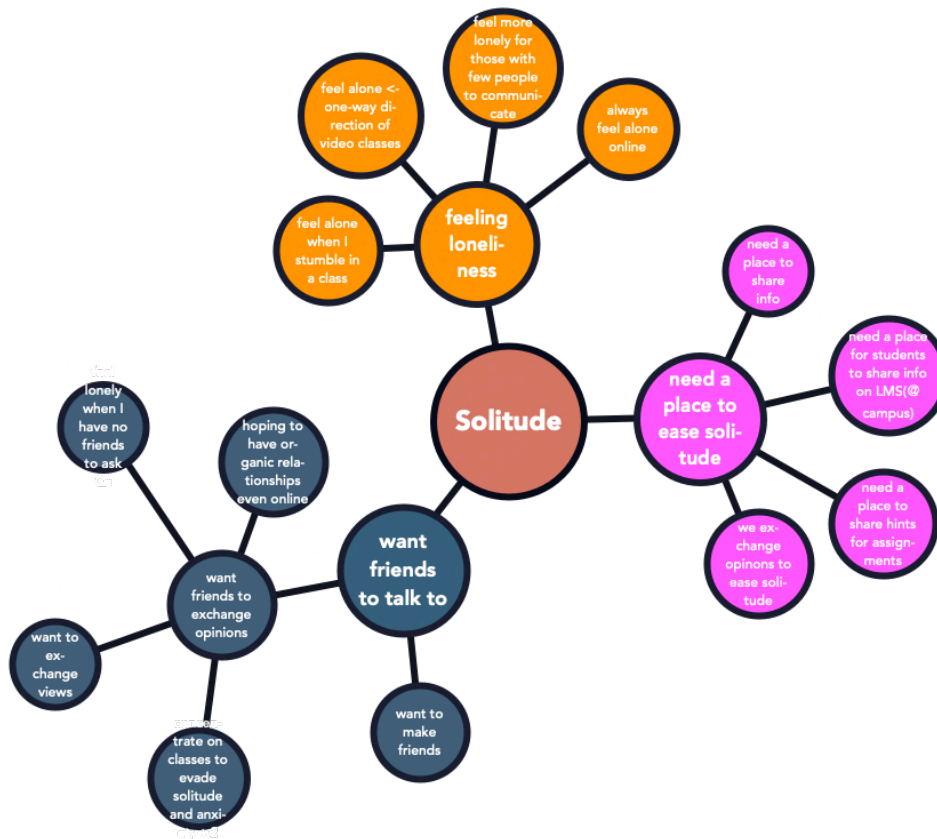


Figure 4: Graph for Solitude category

Anxiety:

- One major source of anxiety among students is the lack of information, especially about situations of other students. They want to know how well other students are doing, or how other students are coping with the course load.
- Various aspects of online learning cause anxiety; when they cannot understand online class contents, when they don't know effective methods to study, or when they are not sure how to balance the study load while having a job at the same time.
- Anxiety is also connected to situations in which they cannot find a place to ask questions, to get information about course results, or to meet someone they can work together.

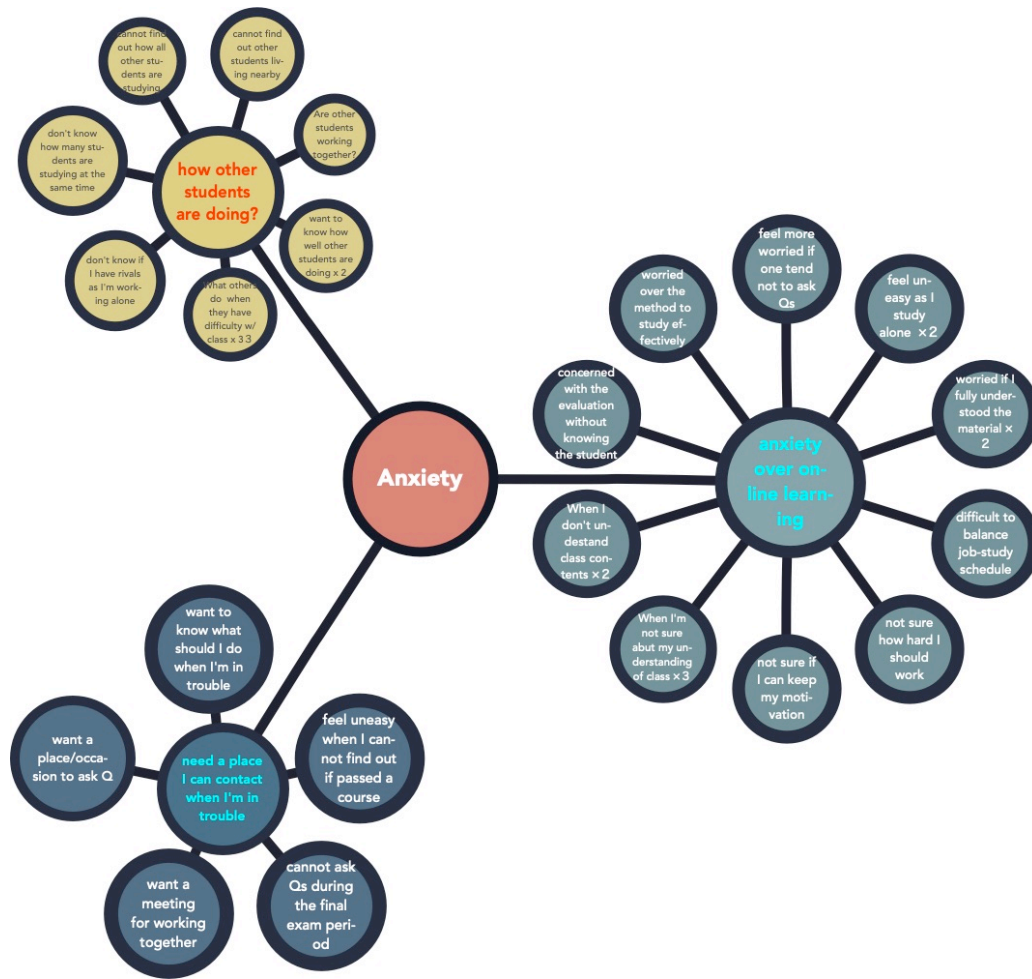


Figure 5: Graph for Anxiety category

Need for Community

- There is a need to simply exchange views and opinions from different people.
- They want a space where they can have a casual chat and talk about course work. They prefer to ask those questions of fellow students rather than professors.
- They look for online interactions without delay or latencies.
- They want real-time, face-to-face interactions.
- They think that it's difficult to replace real, physical interactions by online communication.

In this large category, there seem to be two sub-themes; one theme for interacting online for exchanging different views, possibly without latencies, and another one for face-to-face, real interactions.



Figure 6: Graph for Community category

Negative Chain Problem in SNS

- Positive opinions are often followed by negative responses.
- People get tired of impolite, often offensive, posts from particular members.
- Negative responses can easily spread and accelerate.
- People have come to be afraid, or weary, of getting negative responses when they post opinions.
- Text communication cannot convey all of the nuances in real interactions.

Negative chains refer to a situation in which a person posts a positive opinion about matters such as classes, school office, or professors, followed by messages negating or mocking the positive tone of the original message. And these negative messages tend to propagate faster and damage the atmosphere of the community.



Figure 7: Negative Chain Problem in SNS

Discussion

The dilemma

The results of the questionnaire survey demonstrated that more than 70% of students feel lonely while studying online to a certain degree. Also, the interview survey results include a large category on solitude, which has sub-categories on general loneliness while studying online and about the needs for places to meet other people and ease solitude.

In addition, the two surveys agree that students have anxiety caused by lack of enough information about school or courses, or how other students are doing their work.

Judging from these results on loneliness and anxiety, it is natural that they want to have an online space or tool to communicate with other students. From the large category on the need for community in the results of the interview survey, it is evident that students are looking for friends whom they can ask questions casually instead of asking professors.

However, the survey results also indicate that they are not enthusiastic to join and use the intra-SNS. It was shown that only a few people use it frequently and it would be difficult to expect that the usage will surge in the future.

Here we see a dilemma; the students are lonely and have anxiety so they do want to communicate using online tools, but at the same time, they are afraid of posting their honest opinions caused by negative responses they might receive later.

One interviewee has expressed reluctance to exposing personal information in his messages on SNS. He has seen cases in which people agree with negative posts targeted at positive messages and they spread widely in the community. In this way, people now understand that although exchanges on SNS may seem fun and convenient, the real situation is full of confusing and often uncomfortable situations.

Thus, due to such a dilemma, students will not be able to smoothly interact with others even if they desire to have interactions with other students. If these conditions persist for a long period of time, they may not only increase the students' loneliness and anxiety but also reduce their willingness to learn. Therefore, it is essential to resolve or reduce this dilemma.

Solutions for the dilemma?

What would be the solution? In the earlier analysis (Oda et al., 2020), it was suggested that there seems to be a common problem with online emerging technologies to connect people. What was suggested is to look at the psychological, social and cultural, or "humanizing" aspects for online communication, as some other researchers have already pointed out (Maria & P, 2016).

Online technologies so far sought to overcome technical problems and came up with various "solutions" such as email, blogs, SNS, virtual campuses, and MOOCs. Still, it seems that we do not have a mechanism to provide a comfortable online campus for students. The situation of dilemma unearthed through the analysis reported above seems to be connected to this "human" aspect of student communication, which obstructs the use of ICT tools.

What must be done in the future would be to make efforts to reduce the loneliness and anxiety of students by conveying positive opinions from the community, spreading them to many students, and expanding and deepening connections among students. It seems necessary to find a way to add these humanizing aspects to online technologies.

One possible solution suggested in the present survey results is to have face-to-face meetings before online communication. This is a very popular idea and it might be worth trying to have gatherings for students to meet physically and hold events to make friends or "buddies." We can make comparisons with other people who did not have such an opportunity.

At the same time, online meetings are vital at on-line only universities. There are students who cannot attend those physical meetings simply because they are living far from the campus or living in foreign counties. And there may be students that are not good at face-to-face communication. For example, students with autism spectrum

disorder or similar symptoms may want to avoid eye-contacts with interlocutors and prefer meeting online. For these people, online tools that connect them comfortably and effectively without problems like negative chains are essential.

It is important to consider what is the shortfall in online campuses compared to conventional campuses and to create an online environment where communication does not put mental or psychological burdens on students.

Although there was no space to address the issue properly in this paper, a cultural perspective might also play a role in the “humanizing” perspective. As it was seen in the survey results, students are rather reluctant to send questions directly to teachers in the online space. One possible reason for this is that they don’t want to stand out even in the BBS or SNS. This lack of eagerness to join SNS or share opinions on online forums can be connected to the general cultural emphasis on group-oriented values over individualism, which is often claimed to be one of the unique aspects of the Japanese society. This may be common characteristics in Asia. But it is repeatedly pointed out that it is very noticeable in the Japanese society. For example, Rohlan wrote about those characteristics of the Japanese school culture (Rohlen, 1983) and Hofstede proposed Japan culture index in individualism and collectivism to highlight the difference (Hofstede et al., 2010). In Japan, from pre-school education, students wear the same uniform of the school, follow the rules, and try to behave like other students. Raising hands in class or posting questions on a BBS is an act of “standing out” in the crowd, and they have developed an instinct to avoid such a potentially risky behavior.

Conclusion

With the advent of the Internet and online technologies, there are many virtual or online universities today, and some of them are online-only universities, which have no brick and mortar buildings. For such universities, the problem of online campus and student communication is serious and urgent since it has been shown that lack of communication among students and with faculty members results in higher drop-out and attrition rates.

Online-only universities must rely on some ICT technology to connect people, such as SNS or virtual campuses and avatars. There have been many attempts to use those technologies for connecting students online. However, they have met great difficulties in the context of online distance education as was pointed out in an earlier report by this research team(Oda et al., 2020). The hypothesis is that there is a common humanizing factor that is lacking in all of those attempts. The research team is now trying to find out what is missing in the online communication at TOU campus by conducting questionnaire and interview surveys. The analysis results reported here are still preliminary, but they revealed that there is a dilemma in the students; they have solitude and anxiety in their online campus life and looking for connections with other students and faculty members, yet there is a fear of joining actively in the intra-SNS or SNS services in general.

Online campus life does not exist without online communication tools in the case of online-only universities, and we need to keep looking for solutions.

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¹It is sometimes called Affinity Diagrams. See e.g., (Curedale, 2016).

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