

## Emergence of COIL as Online International Education Before and After the COVID-19 Pandemic

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**ABSTRACT** – This paper focuses on the theme of online collaborative online learning practices (COIL) that have emerged around the world in international education, which has been greatly affected by the pandemic. Although it will be up to higher education institutions to decide, it is expected that blended mobility, which combines online modality and study abroad, will become the mainstream.

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### INTRODUCTION: SHUT DOWN OF INTERNATIONAL MOBILITY

The pandemic brought about by COVID-19 has led to ever-changing national responses, primarily directed towards the management of infection and vaccination rates in different countries. With regard to pandemic related responses in the field of international education, it has become extremely difficult to establish information on fundamental decision-making criteria, such as the recruitment of international students and the understanding and forecasting of the impact on universities sending students abroad, including to Japan. At the beginning of the pandemic in 2020, there were warnings that, in view of the expected economic impacts, we should be prepared for at least a five-year decline in student mobility.

Country	Total new students			Change	
	2018/19	2019/20	2020/21		Change 2019 to 2021
 Nigeria	20,399	16,989	38,333		88%
 France	23,716	11,228	31,549		33%
 India	257,401	192,199	327,963		27%
 Germany	13,469	5,363	15,016		12%
 China	376,109	193,806	283,795		-25%
 United States	31,971	19,770	23,867		-25%
 South Korea	52,139	29,932	32,765		-37%
 Nepal	19,341	10,061	11,195		-42%
 Malaysia	16,091	8,158	8,759		-46%
 Japan	32,165	15,919	17,303		-46%
 Vietnam	40,018	22,157	19,905		-50%
 Brazil	34,261	16,564	16,713		-51%

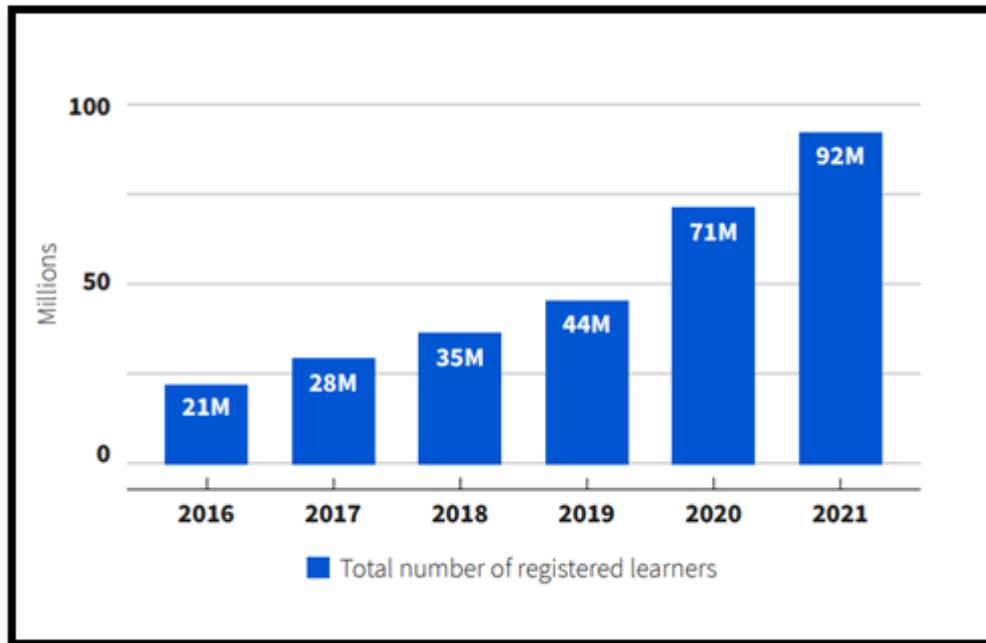
**Figure 1.** Comparison of the Number of New Study Visas Issued Worldwide in 2019-2021 (Hurley et al., 2021).

Figure 1 is an extract from the findings of the Michell Institute at Victoria University, Australia (Hurley, et al., 2021). It compares the evolution of the number of new study visas issued in the countries/regions considered to be the 'biggest countries for attracting international students' between 2019 and 2021. Japan is also shown in the table, with a significant decrease of -46% at present. Although many of the sustained and significant pandemic related control measures are finally easing, it is still very difficult to implement visa-free mobility programmes for short visits, as was the case before the

pandemic onset, so a full recovery may not be expected until around 2024, exactly five years after the early stages of the pandemic.

## DEVELOPMENT OF ONLINE EDUCATION DURING THE CORONA DISASTER

According to information published by UNESCO relating to the Corona Disaster, in which face-to-face education had effectively ceased, approximately 1.3 billion learners worldwide were unable to attend school or university on 23 March 2020. This UNESCO figure covers learners enrolled at pre-school, primary, secondary, tertiary and further education levels. As many as 80% of the world's learners have been locked out of educational institutions due to national closures. One of the fastest-growing ways out of this was through online education provision, with one example being the case of Coursera. In 2016, there were 21 million students enrolled in Coursera's online courses, with the number growing by about 7 million each year for the next two years. However, triggered by the switch to remote work following the pandemic, the number of new enrolments tripled to 71 million in 2020 and 92 million in 2021 (Coursera Impact Report, 2021).



**Figure 2.** Coursera Enrolment Evolution (2016 – 2021).

Almost three-quarters (72%) of respondents reported in a survey that higher education in their country will be conducted online at least as much as face-to-face in the future (Coursera Impact Report, 2021).

## THE RISE OF ONLINE INTERNATIONAL EDUCATION (COIL)

A similar phenomenon occurred in international education as online education was promoted. In particular, higher education institutions in many parts of the world have taken the lead in shifting from physical student travel and study abroad to online exchange and co-curricular activities. Collaborative Online International Learning (COIL) has attracted a great deal of attention in this context. COIL is an online collaborative learning system that uses online (web) tools and collaboration with overseas universities to match domestic subjects (classrooms) with overseas classrooms, and to provide a learning environment that is both accessible and accessible to students.

The [C] in COIL stands for Collaborative Learning (COIL). Courses (classrooms) from overseas universities are paired with courses (classrooms) from domestic universities to form virtual international small groups of mixed students from each class, who take part in project-based learning (PBL) activities based on their own initiative. A 'virtual team' can only be formed if it is remotely connected to the rest of the world, and ICT tools are the primary conduit by which such virtual teamwork can be undertaken. If there is a large geographical time difference between the two universities abroad, it is difficult to connect them in a synchronous (real-time) Classroom-to-Classroom manner. In such cases, asynchronous tools are mainly used for communication. COIL is sometimes mistakenly understood to be about software or as if there is a fixed syllabus, but like other educational methods, it is applied according to the content of individual subject activities and their suitability for the learning achievement objectives. It is not limited to specialisation in a field. In fact, COIL at various universities in Japan, which has been in development since 2014, is not limited to subjects in the humanities, with many examples of COIL being applied in science and engineering subjects. Furthermore, since COIL is a matching of at least two subjects (one overseas and one in Japan), there are many cases where the subjects are in the same field of study or different specialisations from each other. This is called interdisciplinary COIL and works very well when there is a desire to offer students newer learning and challenges (e.g. seminar subjects). At Kansai University, the Sustainable Development Goals (SDG) are often taken up as a theme to promote this interdisciplinary COIL. In

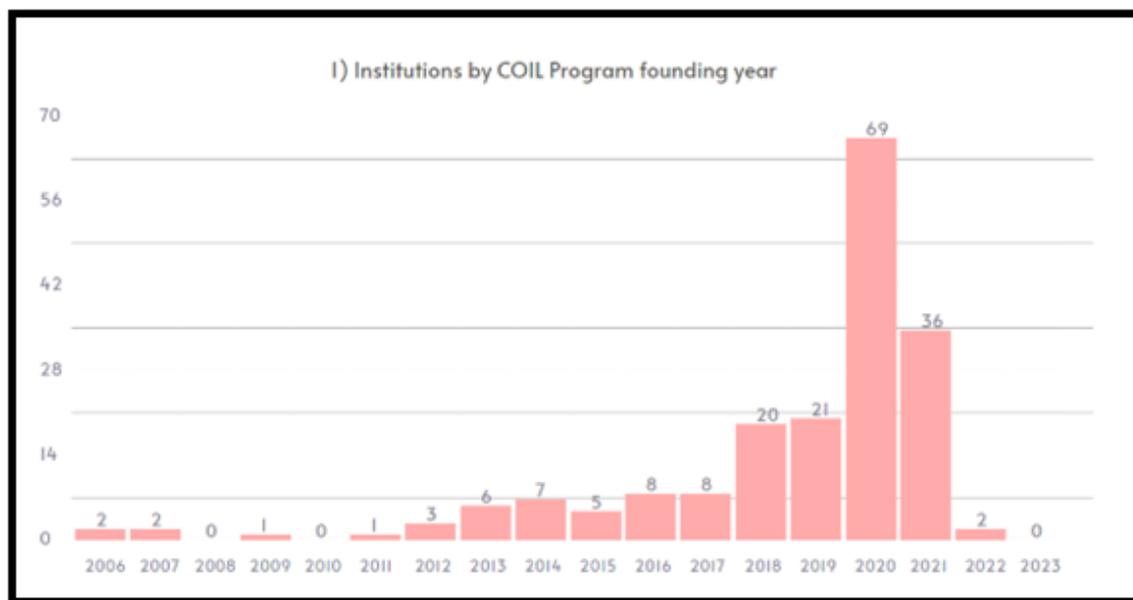
consideration of the 17 multidimensional sustainable development goals (SDG) and solutions to achieve them, students from different cultural backgrounds and from a fusion of arts and sciences are tasked with working as teams to explore the results. Whenever I see them making joint presentations, I realise that the accumulation of such activities cultivates a 'global citizenship mindset'.

Kansai University was the first university in Japan to launch COIL as a university initiative in 2014, before the Corona disaster. It has now grown into an organization called the Institute for Innovation in Global Education (IIGE), which promotes international educational practices that integrate COIL and other diverse online education. This organisation was established after the 'COIL Plus Programme for Cultivating Global Career Minds' was selected by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan, for the 'FY 2008 'Project for Strengthening University Global Development Capability' - Support for Formation of Inter-University Exchange with the United States Using COIL-type Education'.

### SPREAD OF COIL PRACTICES WITH COVID-19

The trend to incorporate COIL-type education abroad has been even more rapid than in Japan. In the last few years, the American Council on Education (ACE) has been a hub for COIL matching between universities in Japan and the USA, Venezuela and the USA, and Norway and the USA, providing training for teachers in charge of COIL, and providing training for teachers in charge of COIL in the USA. In Japan and the US, a total of 13 US-Japan universities in 2018-2019 and 28 US-Japan universities in 2020-2021 were selected and active in the ACE initiative. These are also initiatives in which IIGE was commissioned by ACE to participate as a training provider for faculty members involved in COIL subjects.

COIL Connect (2022) is a network of university institutions and other organisations that are implementing COIL practices on an institutional basis, launched in North America in 2021. The COIL Connect web portal, which is the hub of COIL Connect (launched in February 2021), has survey results that can be viewed exclusively by registered users. Some of the results are available to the public, but within this there is a graphical display function showing the results of responses from registered institutions, with individual institution names withheld (Figure 3). 183 institutions were members as of 24 February 2022, and this tally is updated and displayed periodically. With the permission of the network's organiser, Jon Rubin of COIL Consulting (former director of the SUNY COIL Centre and creator of the COIL practice), we would like to republish here also some of the data published in IIGE. Figure 3 shows the growth of the sector since its inception, based on the date when the COIL VE programme was established by the member institutions. It can be seen that there has been steady growth over the last 12 years, but especially in 2020, which is very significant; in 2021, a number of institutions have also established COIL/VE programmes. So far, little additional growth has been seen in 2022. The number of COIL subjects established in 2022 is expected to increase in the very second half of the year.



**Figure 3.** COIL Connect Member Organisations Classified by Year of Foundation.

Although similar data analysis studies have not yet been conducted in Japan, there are several phenomena that suggest changes in the level of focus on COIL practices since 2020. In June 2020, when the country entered the state of emergency, the media first took up the issue (Ikeda, 2020), which led to an instant increase in awareness of this educational method and a flood of enquiries to the IIGE. The IIGE received various inquiries, such as: "We (the university) would like to take it in, but what should we do?"; "We would like to send out information about the promotion of COIL subjects overseas"; and "We would like to encourage more students to participate, but we are having trouble finding a way to attract more students." One 'solution' that has gained widespread understanding is participation in the JPNCOIL Council, in which

university institutions promoting COIL-type education in Japan participate. This council started in 2018 as one of the activities of the Strengthening Universities' Global Development Capability Project 2018-2022, with Kansai University (IIGE) acting as the secretariat and a total of 13 universities, mainly from universities that had adopted the project. In March 2022, there were 48 universities (IIGE website). The council primarily seeks membership on a university basis. It requires a commitment by the university governing body, which may take some time for some organisations to decide. Even under these conditions, several universities continue to join every month. This evolution in the number of university affiliations is indicative of the growing interest in the country.

## DEVELOPMENT AND DIVERSIFICATION OF COIL-TYPE EDUCATION

Forms of COIL-type education have also diversified. COIL is not only implemented in a bilateral (one-to-one) format between overseas and domestic universities, but also in a collaborative curriculum between subjects from several countries and regions, with mutual learning and project-based activities between students. Multilateral COIL practices are also being developed, such as those that promote COIL. The developmental COIL practices implemented by the University are illustrated in Figure 4.

Institute for Innovative Global Education

# IIGE が手掛ける発展型のCOIL/VE

Advanced COIL/VE Programs

2020年の新型コロナウイルス感染拡大で学業に影響を受けた学生のために、こちらのCOIL/VEプログラムを提供しています。

Kansai University IIGE is offering the following COIL/VE programs for students whose educational experiences have been impacted by the 2020 novel coronavirus pandemic.

1. 関西大学 言語学習 COIL/LLC  
Kansai University Language Learning COIL/LLC  
言語学習を主目的としたCOIL。  
COIL which aims to improve students' practical language skills.
2. 関西大学 Multilateral COIL-協働授業型  
Kansai University Multilateral COIL-Collaboration  
複数大学が連携して行うCOIL。  
COIL conducted between multiple collaborating universities.
3. 関西大学 Multilateral COIL-IIGE 発信型  
Kansai University Multilateral COIL - IIGE Outbound  
IIGEが開発したカリキュラムを多数の大学の学生に提供するCOIL/VEプログラム。  
A COIL/VE program that provides IIGE-developed curricula developed to students at multiple collaborating universities.
4. 関西大学 Engaged/Exchange Online Learning  
Kansai University-Engaged/Exchange Online Learning  
国内大学（本学）と海外大学の間で科目履修を許可する相互履修型COIL/VE。また対し異なる授業形態を行うのではなく、その科目内においてCOIL実践を行う。  
A mutual course type COIL/VE that allows courses to be taken between domestic and overseas universities by practicing COIL within the course.
5. 関西大学 VIS-COIL  
Kansai University VIS-COIL  
バーチャルインターンシップ型COIL。  
Virtual Internship COIL.

Figure 4. Developmental COIL/VE Programmes Undertaken by IIGE.

The IIGE makes two broad distinctions in its definition of 'COIL-type education': COIL and Virtual Exchange (VE); when referring to COIL, it is assumed that it is 'the teacher and his/her class students' who come together to practise collaborative learning. When only students participate in collaborative learning, it is positioned as a Virtual Exchange. In the case of multi-university institutions, there are mixed cases where two of the universities participate with teaching staff and students, while only students from other third institutions participate, often referred to as 'COIL/VE'.

The IIGE organised an international forum in December 2021. COIL/VE is a very effective interactive educational practice, but other online modalities have also appeared in various forms of practice in response to the Corona disaster. These include language learning modules such as 'online study abroad', international exchange learning in the AR/VR metaverse, and international co-curricular classes in a high-flex classroom space that simultaneously utilises both virtual and on-site modes. Whether this will continue to be the next normal, or whether it will be further divided into a wide variety of forms, there will be a requirement that we need to examine it thoroughly in order to propose the most effective methods of utilising it to meet the educational objectives. If the characteristics, strengths and effects of each of these are explicitly stated, we will be able to examine them and provide a blended international exchange education. The 'symbiosis' between study abroad and online international education (OIE), which is likely to expand in the future, may be the key to realising a more inclusive yet evolved international education.

The need to train teachers with the educational skills to effectively manage COIL-type education and the knowledge of instructional design to construct activity designs is also a concern for universities that are trying to develop and expand this practice on an ongoing basis. With the support of the management, understanding is gradually spreading. An interesting difference can be seen when comparing the promotion trends in Japan with those outside the country. In other countries, COIL is being promoted as Capacity Building Workshops or Transformation Labs, with the aim of providing learning opportunities for teachers to develop competences that meet the needs of new forms of education. The primary action has been to invest university costs in training and other activities, sometimes on a large scale, such as the Rapid Response Transformation Lab (2020, 2021) conducted by ACE and SHARE (2020, 2021), which is aimed at universities in ASEAN countries. The Capacity Building Workshop (2021, 2022) organised by the European Union Support to Higher Education in the ASEAN Region is an example. In contrast, in Japan, support is provided to each university in the form of government grants, and it is left to the self-help efforts of each university to realise this educational practice. It is

desirable that national and international cooperation is promoted in the future, so that opportunities such as teacher capacity-building training are provided more frequently across university boundaries.

## CONCLUSION

The global pandemic situation and its aftermath is protracted, but it will eventually be brought under control at some point. In some countries, the pandemic is now being reconceptualized as constituting an 'endemic' (in medical and public health, when an infectious disease occurs repeatedly in a certain area at a certain incidence or in a certain season) and beyond that, a phase of worldwide settlement to flu-like treatment is in sight. We are now exactly in the 'interval' period in switching between these phases, and how we move during this period will make a big difference to whether online educational practices such as COIL will take hold in the post-coronary disaster period. Will educational practices such as COIL be 'mothballed' after the Corona disaster is over, or will a new way of international education that blends and mixes diverse options become the 'new normal', as the learning effects of COIL and learning in actual mobility can be used differently? It is important to think about the development of COIL-type education in the medium- to long-term span and to move now.

International education integrated with online education still has some challenges. In particular, it should be pointed out that the history of COIL practice is still young and that cases of effectiveness verification are limited to individual verification at each university; the learning effects of COIL vary depending on how it is used in the practice. In order to accumulate COIL data, horizontal development among universities will be essential. The same can be said for the handling of conventional study abroad programmes, but in Japan the focus has tended to be solely on the development of things such as language skills, as a verification of the effects of COIL, and the understanding of COIL has been extremely limited. This is a very important and urgent issue in order to be prepared for a phase when mobility is restored and COIL is also possible, rather than 'only' online educational practices such as COIL. In particular, it is necessary to make the growth of intercultural competence visible, and to broaden the scope for examining the learning effects of the COIL practice, including the growth of other characteristics such as teamwork skills, logical thinking and presentation skills. The articulation of these characteristics and qualities will also lead to an increase in the employability of students who have participated in COIL.

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