

# Waseda Univ Online Education Coping with COVID-19

## 早稲田大学におけるCOVID-19対応オンライン教育



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**Senior Executive Vice President, Waseda University**  
**IEEE Computer Society President 2018**

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**笠原博徳:副総長(研究・情報化推進)**



**1980 BS, 82 MS, 85 Ph.D. , Dept. EE, Waseda Univ.**

**1985 Visiting Scholar: U. of California, Berkeley, 1986 Assistant Prof, 1988 Associate Prof, Waseda**

**1989-90 Research Scholar: U. of Illinois, Urbana-Champaign, Center for Supercomputing R&D,**

**1997 Prof., 2004 Director, Advanced Multicore Research Institute, Waseda**

**2017member: the Engineering Academy of Japan (2020 Board) , Science Council of Japan**

**2018 IEEE Computer Society President, Senior Vice President for Reseach & IT, Waseda Univ.**

**<Committees in Societies and Government: 263>**

**IEEE Computer Society: President 2018, Executive Committee(2017-2019), BoG(2009-14),**

**Strategic Planning Committee Chair 2018, Multicore STC Chair (2012-), Japan Chair(2005-07),**

**IPSJ Chair: HG for Magazine. & J. Edit, Sig. on ARC.**

**【METI/NEDO】 Project Leaders: Multicore for Consumer Electronics, Advanced Parallelizing Compiler, and Green Computing, Chair: Computer Strategy Committee**

**【Cabinet Office】 CSTP Supercomputer Strategic ICT PT, Japan Prize Selection Committees, etc.**

**【MEXT】 Info. Sci. & Tech. Committee, Supercomputers (Earth Simulator, HPCI Promo., Next Gen.**

**Supercomputer K) Committees, JST Moonshot Project G3 Robot & AI Vice Chair,**

**【COCN】 Board Member in Council of Competitiveness Nippon, etc.**

**<Research Accomplishment>**

**Reviewed Papers: 221, Invited Talks: 190,**  
**Granted Patents: 54 (Japan, US, GB, China),**  
**Articles in News Papers, Web News, TV etc.: 625**

**<AWARD>**

**1987 IFAC World Congress Young Author Prize**

**1997 IPSJ Sakai Special Research Award,**

**2005 STARC Academia-Industry Research Award,**

**2008 LSI of the Year Second Prize,**

**2008 Intel Asia Academic Forum Best Research Award,**

**2010 IEEE CS Golden Core Member Award**

**2014 Minister of Edu., Sci. & Tech. Research Prize**

**2015 IPSJ Fellow, 2017 IEEE Fellow, Eta Kappa Nu**

**2019 Spirit of IEEE Computer Society Award,**

**2020 IPSJ Contribution Award**

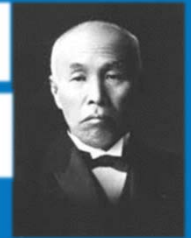
Number of International Students  
**7,942\*** from **125** countries and territories  
(Undergraduate and Graduate)

Alumni CEOs in Japan

**10,606**

**8 Prime Ministers**

**Founder Shigenobu OKUMA**



Graduate Employability  
**#1** in private university of Japan  
(#2 in Japan, #27 in the world)  
 QS Graduate Employability Rankings 2019

**ALUMNI**  
[卒業生]  
**630,000**

**PARTNER INSTITUTIONS**  
[協定大学・機関]  
**848** (93 countries)

<b>FACULTY</b> <small>[教員]</small> <b>5,468</b>	<b>ENROLLMENT</b> <small>[学生数]</small> <b>49,436</b>	<b>UNDERGRADUATE STUDENTS</b> <small>[学部生]</small> <b>41,051</b>	<b>GRADUATE STUDENTS</b> <small>[大学院生]</small> <b>8,385</b>
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**NUMBER OF BOOKS**  
[図書館蔵書]  
**5,800,000**

**SONY**  
**Masaru IBUKA**

**Tadashi YANAI**

**Hiroshi YAMAUCHI**

**mercari**

**Prime Ministers**

8th Shigenobu Okuma  
 17th Shigenobu Okuma  
 55th Tanzan Ishibashi  
 74th Noboru Takeshita  
 76th Toshiki Kaifu  
 84th Keizo Obuchi  
 85th Yoshiro Mori  
 91st Yasuo Fukuda  
 95th Yoshihiko Noda

**Business Leaders**  
 Founders of global companies

Sony  
 Samsung  
 Casio  
 LOTTE

**Business Leaders**  
 CEOs of global companies

ANA  
(All Nippon Airways)  
 HONDA  
 Nintendo  
 UNIQLO  
 Shiseido  
 Nomura Securities Co., Ltd.  
 Tokio Marine & Nichido Fire Insurance Co., Ltd.  
 Olympus Corporation

**Aiji TANAKA**  
  
 President International Political Science Association (IPSA) President 2016

**Hironori KASAHARA**  
  
 Senior Executive Vice President IEEE Computer Society President 2018. The first president from outside USA and Canada in 72 years CS history. CS has 84,000 members from 168 countries.

**Toshio FUKUDA**  
  
 The University Professor Waseda, Waseda Alumnus, Prof. Emeritus Nagoya Univ., Prof. Meijo Univ. IEEE President 2020. The first from Asia in 135 years history. IEEE has 420,000 members.

**Haruki MURAKAMI**

**Hirokazu KOREEDA**

**S. ARAKAWA**

**Yuzuru HANYU**



# Waseda's Priorities to cope with COVID-19

学生・ご父兄・教職員の健康と生命を守る・質の高い教育を提供・研究の継続(2月)

<https://www.waseda.jp/top/news/69265>

- Protect the life and health of students, their family, faculty members, researchers and staff
- Provide high quality online education
- Continue research



Decision to cancel the  
March graduation ceremony



Decision to cancel April Entrance  
Ceremony and Guidance



# Timeline of Online Education Preparation in Waseda against COVID-19

<u>2020.2.5</u>	Started discussion for Online Classes expecting professors would teach from classrooms.
<u>2020.3.11</u>	Announced the delay of start of classes (After 4/20) considering students outside Japan Started " <u>Teach Anywhere</u> " development that was formally opened on 4/5
<u>2020.3.24</u>	Announced the further delay of start of classes ( <u>5/11</u> )
<u>2020.3.28</u>	Requested faculty to prepare <u>online classes from home</u> with <u>starting technical supports</u>
<u>2020.4.1</u>	<u>Announced to students that Spring 2020 classes will in principle be conducted online</u>
<u>2020.4.3</u>	Japanese 3 Big Smartphone companies announced discounting data communication expenses for students for Spring semester
<u>2020.4.6</u>	Announced campus closure between 4/8~4/21
<u>2020.4.9</u>	Opened " <u>Learn Anywhere</u> " site for students
<u>2020.4.13-</u>	<u>Started online course seminars for faculty and TAs with CTLT (Center for Teaching, Learning and Technology) .</u> 3,400+ profs, staff, etc participated in 15 webinars.
<u>2020.5.3</u>	Started emergency <u>financial supports</u> for students having financial difficulties
<u>2020.5.7</u>	For Faculty: Began supporting recording lectures in classrooms for on-demand classes
<u>2020.5.8</u>	For Students: <u>Began free rental of Wifi router and PCs</u>
<u>2020.5.11</u>	<u>Started Online Education: Online classes with Moodle, Collaborate, Millvi for 50,000 students successfully worked</u> except an <u>on-demand CCS's slow-down for 4 hours.</u>
<u>2020.6.22~</u>	Opened campus, restarted face to face service on appointment basis

3/26 Japanese government established response headquarters

4/7 Japanese government declared state of emergency





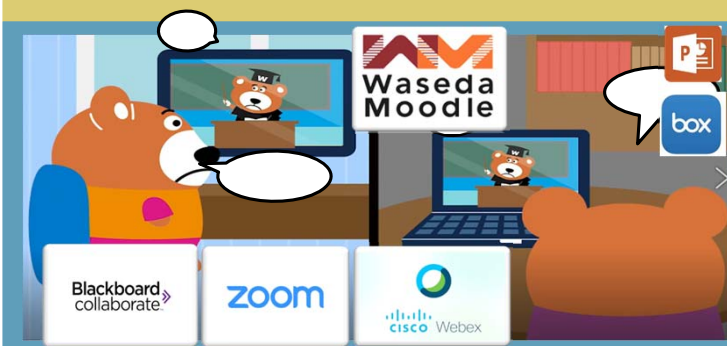
## Waseda Online Education started on May 11, 2020 for 50,000 students and 18,000 courses



講義資料・課題提示による授業  
Learn through Course Materials / Assignments  
on Waseda Moodle



収録内容オンデマンド配信による授業  
Learn by on-demand lecture video with CCS for self-creation in home and Milvie for in campus via Moodle



リアルタイム配信による授業  
Attend online realtime lectures using Collaborate and Zoom via Moodle:  
All lectures are recorded

- Professors could choose any of **3 ways for Online Lectures in Spring. Fall, In-Person + Online will be also available.**
- **Students with Financial Difficulties by COVID-19 had emergency financial supports and WiFi Routers and Note-PCs were lent for free by Waseda U.**
- **NTT Docomo, KDDI, SoftBank discounted Student Data Communication fee for the Spring Semester**
- **Discounted Smartphones with one year free data communication for students, teachers & staff for Family WiFi problem.**

# 早稲田大学のNew Open LMS “Waseda Moodle”に2020年4月に移行

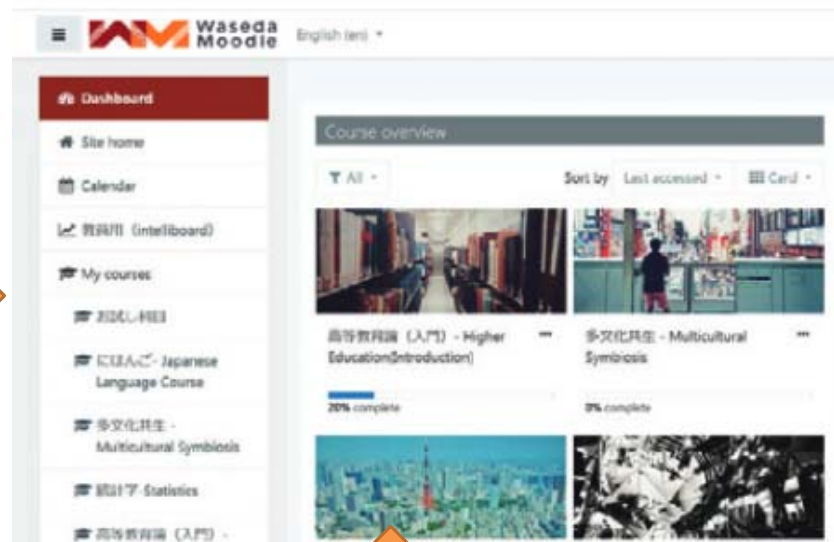
Waseda Univ. moved to New Open LMS “Waseda Moodle” from April 2020 from a proprietary LMS , “Waseda-net Course N@vi“ which has been used since 2007.

“Waseda Moodle” has been developed with Blackboard since 2017.

My Waseda  
Univ. Portal site



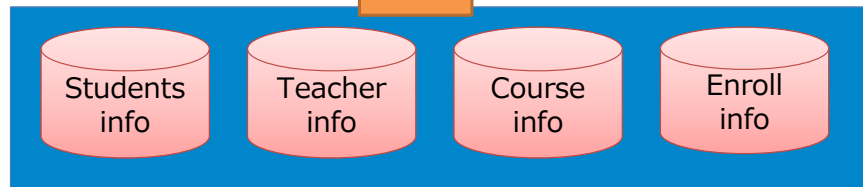
Waseda Moodle  
Learning Management System



Multiple external services



University data coordination



# CTLTとポータル・オフィスによる、授業運営相談・支援

## Consultations & Supports for Online Classes by CTLT & Potal Office for Profs and students

- With campus closures, **all course supports** have been provided **online**.
- **"Teach Anywhere"** provides **how to prepare and operate Online Lectures with accumulated experience and mutual help among profs., etc.**
- **"Learn Anywhere"** provide **how to prepare and learn Online Lectures. It has multi-device compatibility (browser, ver, etc) and multilanguage user interface.**
- Manuals and Tips also expanded. Implemented a **Chatbot**, opened **helpdesk** to respond to inquiries via **Home-based call center systems** and **emails**.
- Newly appointed faculty also helped to provide detailed and timely support.
- In special cases, in-person supports have been also provided.

Date	Inquiries
2019.04	<b>1,800</b>
2020.04	<b>6,300</b>

"Teach Anywhere"

View Count

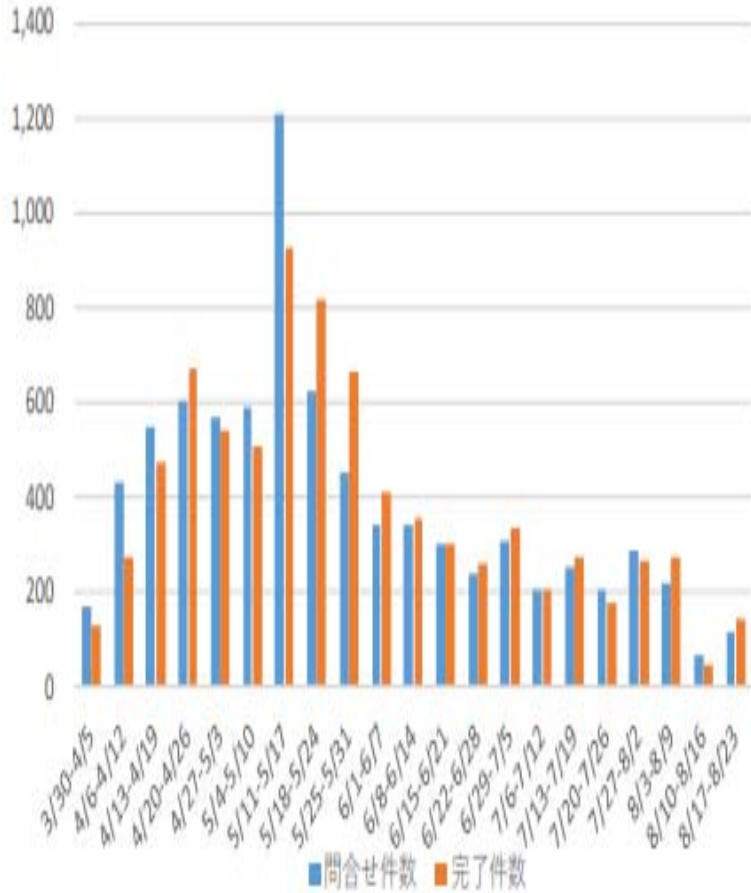
**4,311,236**

Inquiries Appx.

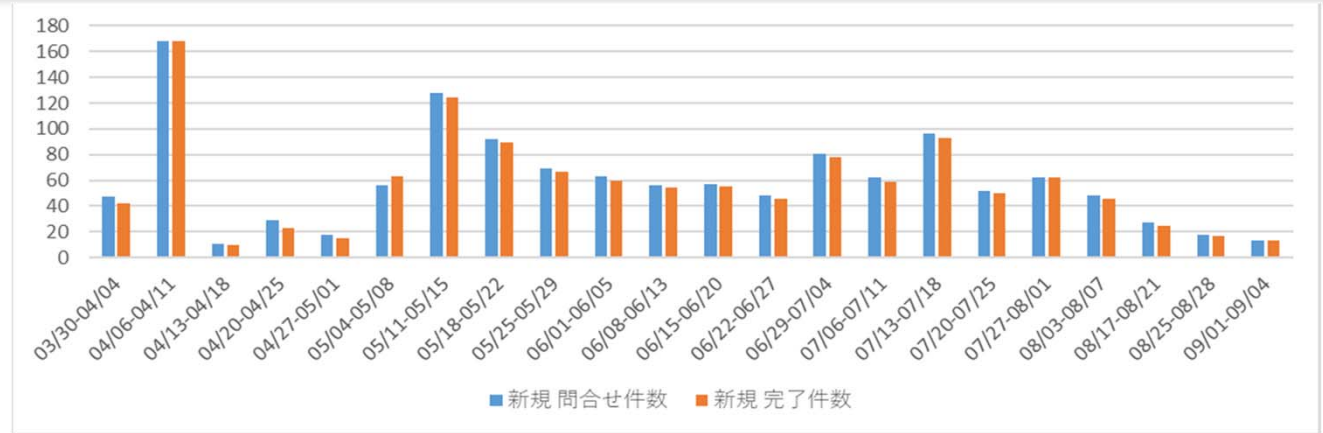
**400 per week**



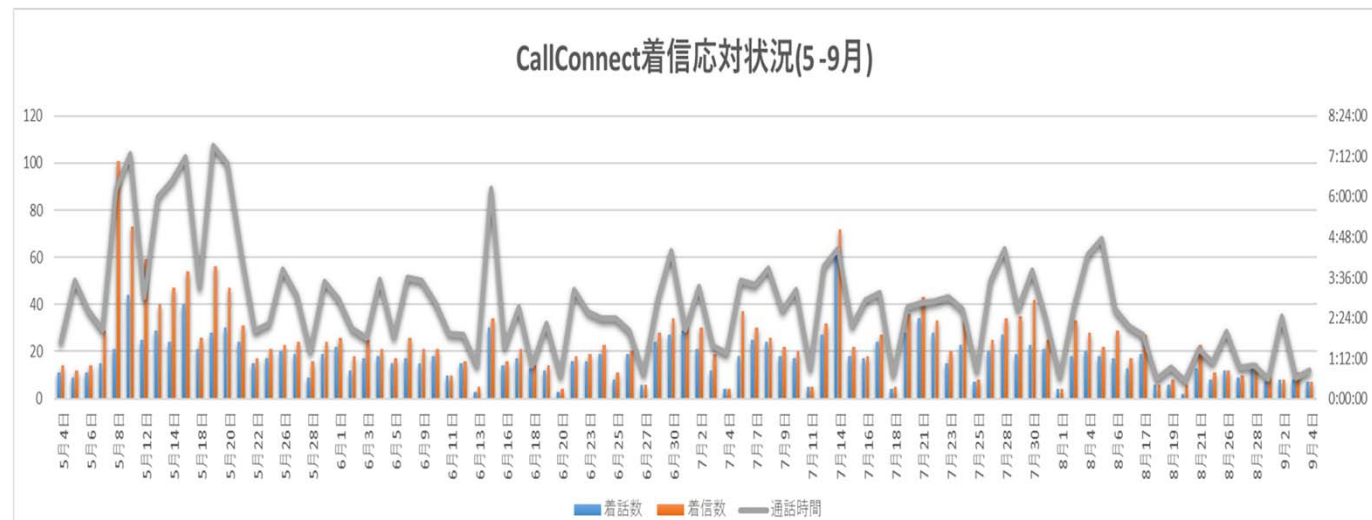
教員・学生からの相談対応：ヘルプデスク（メール），  
CTLT techカウンター(対面、オンライン、自宅からのコールセンター方式対応)



ヘルプデスク対応（メールベース）



CTLT techカウンター(対面、電話、Zoom等オンライン相談：対面は予約制、ソーシャルディスタンス、消毒等感染防止有り)



CTLT techカウンター(職員・TAの自宅からのコールセンター方式対応)



# Waseda 2020 Fall Hybrid Graduation and Online Entrance Ceremonies

大隈講堂にて3月・9月卒業生のためのハイブリッド（対面+YouTube）卒業式（9/20）

4月・9月新入生用オンライン（YouTube）入学式(9/21)を実施

秋学期は、実験・実習等はソーシャルディスタンス・消毒を配慮した対面、通常講義はオンライン。

国外・オフキャンパス学生のため録画付きリアルタイム配信併用し、オンデマンド視聴可とする



WASEDA University

Emergency notice

Your interest: | About Us

Announcement regarding the March and September 2020 graduation / the April and September 2020 entrance ceremonies (Updated on September 18, 2020)

April and September 2020 entrance ceremonies (Updated on September 18, 2020)  
Tue, Sep 1, 2020

Tags

Announcement

the April and September 2020 entrance ceremonies (Updated on September 18, 2020)  
Tue, Sep 1, 2020

Tags

Announcement

## 学生からの主なコメント Major Comments from students

- "There are a lot of assignments! Study time per day is 3 hours more than usual"
- "I can learn at my own pace (難しい部分を繰り返し聞いて理解したり、自分の分かり易い速度で聞いたり) , and it feels like I was able to learn deeper."
- "I want to conduct experiments on-campus"  
(実験キットの送付、シミュレータ、クラウドツール利用実験は実施)
- 聴覚障害がある人へのテロップの付加は大変良かった
- 集中しすぎてリアルタイム講義が続くと大変つかれる
- 講義中の演習、小テストは効果的であった
- チャット、手を上げるボタンの利用により質疑応答が活発になった
- 黒板を見るよりも、各自のPCを見て理解できるので集中力が高まった
- 教員のオンライン講義習熟度、ネットワーク環境に良く無い場合があった
- ラッシュ時間の通学が避けられたし、通学時間の有効利用が図れた





# Computer Education in the Age of COVID-19

Jean-Luc Gaudiot, University of California, Irvine  
Hironori Kasahara, Waseda University

COVID-19 has been devastating across the globe, forcing profound changes in most human interactions. Through an informal survey of numerous educators worldwide, we explore some of the disease's effects on the education community and how the online delivery of educational materials can meet these challenges.

As many in the world continue to suffer from the devastating effects of the COVID-19 pandemic, solutions are continuously being sought for dealing with its consequences and the need to reduce opportunities for infection. Stores of all kinds have adapted by encouraging social distancing, requiring face masks, installing Plexiglas partitions in

ciently off-loaded to In between the of higher learning lemma with which how to continue op ers experience diffi ularly acute for edu face-to-face interac tailor the delivery o

We have therefore endeavored to find out how our colleague educators in computer science and engineering have approached this dramatic situation, what fruit their efforts have borne, and what support (or resistance) they have met with the student population, their own colleagues, and their administration. Indeed, most universities and schools worldwide have had to quickly retool and turn to long-distance education to continue fulfilling their educational mission when faced with the pandemic emergency and the resulting stay-at-home orders. This has caused many teething problems, from needing to educate instructors, to deciding how lab classes could be handled, all the way to designing secure environments for exams. It is thus the goal of this column to describe the reactions of educators globally. We offer a small sample of how our international colleagues have dealt with the crisis, what they regret, how they will improve; in short, they relate their experiences to the community, perhaps providing some guidance to us all for the future.

## THE SURVEY

We contacted a small sample of colleagues from a number of countries around the world and presented them with the a set of 10 questions.

### Question 1

What classes did you teach during the pandemic (undergraduate/graduate/lab)? How many students?

We received reports for 24 computer science and engineering-related classes for 10–400 graduate and undergraduate classes from 14 universities in nine countries, including the United States, United Kingdom, Brazil, Russia, Australia, Spain, Japan, China, Taiwan, and Iran in addition to a report for 18,000 classes for 50,000 undergraduate and graduate students from Waseda University, Japan.

### Question 2

Did any one topic lend itself better/worse to remote teaching?

Most respondents (with some exceptions) are satisfied with online teaching, and there appears to be no specific topic for which online teaching presents any disadvantages. On the contrary, a number of respondents felt that it allowed the students to better concentrate. Some even cited programming courses as easier to manage online. On the negative side, some people deplored the obvious lack of teacher-student interaction. Lab classes can also take advantage of many online

The problem is particularly acute for educators, who have long relied upon face-to-face interactions and interpersonal feedback to tailor the delivery of high-quality knowledge.

teaching platforms with recording or playback functions, which allow the students to review difficult steps or verify procedures beforehand.

### Question 3

What tools did you use? How much ramp-up effort was needed? What kind of support did your home institution provide? What kind would you have liked?

The following tools were reportedly used:

- › learning management systems (LMSs): Moodle, Canvas, etc.
- › plagiarism detection: iThenticate, Turnitin, Ejudge, etc.
- › on-demand video creation and/or delivery, including
  - massive open online courses, YouTube, etc.
  - for self-on-demand video content creation in professors' homes and content delivery: Panopto, Contents Creation

Studio, Open Broadcaster Software with a Vimeo platform, etc.

- for assisted content creation on campus and content delivery, Millivi, etc. were utilized
- › for real-time online lectures and meetings with recording: Zoom, Blackboard Collaborate, Microsoft Teams, Cisco Webex, Google Meet, Skype, Tencent Meeting, Rain Classroom, Jitsi, etc.; most universities provided enough licenses for faculty members and staff

- › reporting and analytics for LMSs: IntelliBoard, etc.
- › smartphone scanner generating PDFs for handwritten answers: Microsoft Office Lens, etc.
- › exam proctors.

Universities offered the following support to prepare and operate online classes:

- › “Teaching Anywhere” sites for teachers, providing information on how to prepare and operate online education with the lecturers' experiences during classes
- › webinars to explain how to prepare online lectures, including on-demand video lectures and real-time online lectures (these were very helpful to educators who had not used network meeting systems or prepared on-demand

- video materials from their homes)
- › “Learning Anywhere” sites for students, offering information on how to prepare and receive online lectures, including the prevention of server overload as a result of simultaneous log-ins in the morning and after lunch.

As an additional data point, we note that the following additional support to cope with COVID-19 was provided at Waseda University:

- › free lending of Wi-Fi routers and PCs to students with financial issues stemming from the pandemic
- › specially discounted ¥1 smartphones with tethering functionality and one-year free data communication for all students, faculty members, and staff who needed to reduce home network bandwidth problems
- › negotiation with major smartphone companies for the purpose of discounting data communication fees for all students in Japan during the spring semester
- › access to a help desk for faculty and students to prepare, operate, and/or participate in online classes from their homes. The help desks were operated by using “home-based call center systems” so that staff and teaching assistants (TAs) could answer from their own homes.

The University of California, Irvine (UCI) also proactively assisted in the transition:

- › online classes for the lecturers and TAs prior to the quarter; these classes were aimed at lecturers with content creation and delivery, website design, etc.



# Waseda U Online Education Coping with COVID-19 Summary

- Started preparation for Online Education in early Feb.
- Online classes from May11 was announced on Mar.24.
- “Teach Anywhere” was released on April 5, “Learn Anywhere” was released on April 9.
- WiFi routers and PCs were lent for free to students having financial difficulties with Emergency Financial Supports.
- Online classes have been smoothly proceeded with collaboration of teachers, students, and staff resolving a lot of small problems everyday.
- Online Examinations with hand-written Zoom real-time watching, open-text, and take-home methods were used in Spring. For Fall Semester, AI proctors have been evaluated.
- 実験・実習を中心とした対面講義でも都外・他国からの履修に配慮しオンライン配信併用予定
- 新入生を中心に同級生と会う・親しくなれるチャンスを、学術院・学部・学科レベルだけでなく学生部、キャリアセンター、校友課等職員部課も各種オンラインイベントを通して用意
- 学生・卒業生・商店街が学生応援歌の作成・YouTube合唱ビデオ配信、オンライン早稲田祭
- 次世代オンラインキャンパスのためのネットワーク設計（Local 5G等の検討：GITIの支援要）
- Waseda Univ. thanks LMS, meeting, contents creation and delivery, various scientific tools including MATLAB, STATA, Mathematica, smart phones, data communication devices, companies supported Waseda University Online Education.