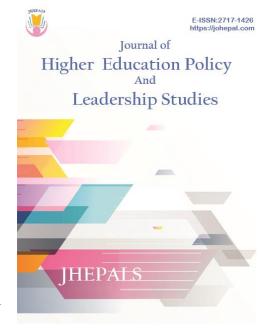
# Journal of Higher Education Policy And Leadership Studies

JHEPALS (E-ISSN: 2717-1426)

https://johepal.com

# AI in Higher Education Admissions: A Comparative Analysis of Practices in Japan and Abroad



Yan Li \*

Email: li.yan.cgin@osaka-u.ac.jp



https://orcid.org/0000-0003-0909-4368

Ariunaa Enkhtur \*

Email: enkhtur.ariunaa.cgin@osaka-u.ac.jp



https://orcid.org/0000-0003-1544-8118

\* Global Admissions Support Office, Institute for International Initiatives, the University of Osaka, JAPAN

Colloquium Received **2025/07/20** 

Colloquium Accepted **2025/09/28** 

Published Online **2025/12/31** 

## Cite colloquium as:

Li, Y., & Enkhtur, A. (2025). AI in higher education admissions: A comparative analysis of practices in Japan and abroad. *Journal of Higher Education Policy and Leadership Studies*, 6(4), 184-190. https://dx.doi.org/10.61882/johepal.6.4.184

### "Colloquium"

# Al in Higher Education Admissions: A Comparative Analysis of Practices in Japan and Abroad

# Policy And Leadership Studies (JHEPALS)

Journal of Higher Education

E-ISSN: 2717-1426 Volume: 6 Issue: 4 pp. 184-190

DOI:

10.61882/johepal.6.4.184

#### **Highlights**

- A comparative analysis of Artificial Intelligence (AI)enabled higher education (HE) admissions practices in Japan and overseas through a structured review of 73 news articles published in English and Japanese over the past five years.
- Identification of emerging trends, commonalities, and contextual differences in the integration of AI in HE admissions in Japan and overseas.
- Discussion on ethical, legal, and social issues (ELSI) surrounding AI use in admissions, with an emphasis on the need for context-sensitive policy development and rigorous oversight to ensure equitable and ethical AI adoption.
- A call for HE institutions and researchers to actively engage in shaping responsible AI adoption in admissions practices that enhance fairness and social justice while navigating diverse regional and institutional frameworks.
- This Colloquium paper is a short research-inprogress paper. The findings are presented in greater detail, with URLs to the original news article and an extended discussion in ELSI NOTE No. 62, a bulletin published in Japanese by The University of Osaka Research Center of Ethical, Legal and Social Issues.

Yan Li \*
Ariunaa Enkhtur

**Keywords:** Artificial Intelligence (AI); Higher Education Admissions; Comparison of Practices in Japan and Abroad; Review Study

<sup>\*</sup>Corresponding author's email: li.yan.cgin@osaka-u.ac.jp

#### Introduction

The adoption of Artificial Intelligence (AI) in university admissions has garnered increasing attention worldwide. A 2023 survey published by Intelligent magazine reported that 50% of participating higher education institutions (HEIs) had already integrated AI into their admissions processes, with 31% planning to follow by 2024 and the other 6% by 2025 (Intelligent, 2023). Recent studies have experimented with the transformative potential of AI to streamline the admissions processes. For instance, Lira et al. (2023) demonstrated that AI-scored essays were as predictive of college success as human-scored essays through their study using the RoBERTa model on more than 300,000 application essays. Similarly, predictive models have been developed to assess applicants' likelihood of admission (Alothman et al., 2022; Van Busum & Fang, 2023) and to forecast outcomes (Bansode et al., 2024). Against this backdrop, this study analyses news articles to understand how AI is currently being implemented in current admissions practices, as reported in news articles, with a particular focus on Japan in the global contexts.

#### **Research Method**

We employed a structured review of news articles from international and Japanese newspaper databases and qualitatively analysed to identify global trends in current practices.

#### **News Article Sources**

For this study, we searched for news in both English and Japanese. For English news articles, the sources include major higher education news platforms—*Times Higher Education, University World News, Inside Higher Ed,* and the *Pie News*. For Japanese news articles, sources include *Japan University News*, digital databases of major newspapers published in Japan, namely *Nikkei, Asahi, Mainichi,* and *Yomiuri*. A further hand search using Google resulted in news from: *PR TIMES* (Japanese), official websites of universities, EdTech companies and other news platforms in both Japanese and English.

#### Search Criteria

For English news articles, the researchers conducted keyword or topic searches using terms such as "AI" and "admissions" with wildcard "\*" and phrase search "" (e.g. "Artificial Intelligence/AI" and "admission\*"). For news articles written in Japanese, searches were carried out by "Article title", "Keywords", or "Topic" in the aforementioned databases, using a combination of the following 3 categories of search terms:

- (1) "Artificial Intelligence/AI", "Machine learning";
- (2) "Undergraduate/ Graduate/ University/ College/ Higher Education/ Higher Education Institution/ HEI";
- (3) "Selection/Admission\*".

Boolean search command is AND, with phrase search ("..."). The searches were limited to articles published within the past five years, up to November 29, 2024.

E-ISSN: 2717-1426 Volume: 6 Issue: 4 DOI: 10.61882/johepal.6.4.184

#### Colloquium

#### **Data Extraction**

After reviewing the search results including the article title, abstract, and full article, the authors excluded duplicate articles published in more than one platform and those that do not meet the inclusion criteria. The inclusion criteria were: (1) the use of AI is relevant to admissions; (2) AI is implemented by HEIs (e.g. not students); (3) it should be news articles that report on above two practices. In addition, a hand search was conducted on Google to identify additional news from other sources, focusing on the specific cases or practices mentioned in the identified news articles for further detailed reports.

Researchers reviewed each article 2-3 times checking whether each aligns with the inclusion criteria. As a result, 73 articles (36 in Japanese and 37 in English) were selected and analysed using thematic analysis (Braun & Clarke, 2021).

#### Main findings

Analysis of the selected news articles showed both commonalities and differences in the use of AI in university admissions practices within Japan and international contexts.

#### Common Practices of AI in University Admissions in Japan and Overseas

Below, we elaborate on the commonalities with concrete examples.

#### **Evaluating Students' Applications**

HEIs have long been using algorithms and machine learning based on their institutional criteria to evaluate students' applications, including essays, transcripts, and letters of recommendation.

In Japan, Ritsumeikan Asia Pacific University (APU) has been using AI to analyse essays submitted by international students since 2020. AI analytics is reported to provide objective data to admissions officers by quantifying and visualizing the characteristics of applicants observed in the essays. The university believes that the combination of objective AI data analysis and subjective human scoring will enhance the fairness of evaluation in the admissions process.

Overseas, in the *Intelligent* magazine survey, responding institutions' primary uses of AI were reviewing recommendation letters and transcripts, and communicating with applicants (Intelligent, 2023). Automated essay scoring systems (AES) enabled by AI have been used to score essays in standardized tests used for HEI admissions in the US. For example, AES such as *IntelliMetric*, has been used to score essays for the Graduate Management Admission Test (GMAT) for more than a decade. In 2019, 21 states in the U.S. already use AES as the primary or secondary essay scorer on standardized tests (Feathers, 2019). Despite these news reports, the names of the universities outside of Japan using AI for document review were not identified in the news articles reviewed. This may be due in part to ethical, legal, and social concerns about the use of AI in document review and evaluation processes.

#### Communicating with Applicants

The use of AI-enabled chatbots in admissions has long been practiced by HEIs worldwide. This is the most common use of AI in admissions practices identified in this study. A possible reason is that the use of AI to communicate with applicants is less directly related to their

#### Li, Y., & Enkhtur, A.

evaluation or to the decision-making processes of HEIs in admitting applicants, making it less controversial and thus easier to disclose.

In Japan, Al-enabled chatbots have been used as early as 2018. Since Saga University first reported their implementation of Al-enabled chatbots in 2018, a growing number of universities have adopted similar approaches to manage applicant inquiries for 24 hours, 365 days. Institutions that disclosed their use of Al-enabled chatbots include Kyoto Pharmaceutical University, Rissho University, Chukyo University, and Japan University of Economics.

Overseas, the use of Al-enabled chatbots to communicate with applicants is also on the rise. This practice has expanded to provide more personalized information and tailored advice on college or major choices throughout the admissions cycle in recent years. For example, *Ivy*, an AI chatbot developed by US-based company CollegeVine, integrates AI with personalized advising features and is reportedly being used at private HEIs, including Belmont University, the University of Tulsa, Rensselaer Polytechnic Institute, Emerson College and Williams College.

In addition to integrating corporate-developed AI chatbots, universities are developing and deploying AI-enabled tools to assist students during the admissions process. Georgia State University (GSU) implemented a customized virtual assistant for GSU Admissions called *Pounce* to improve personalized communication with students by sending timely reminders, sharing important information about enrolment tasks, collecting critical survey data, and providing instant answers to their questions around the clock. Similarly, Pennsylvania State University launched *LionChat* in early 2024 to answer questions related to admissions processes and other frequently asked questions.

# Different Implementation of AI in University Admissions in Japan and Overseas

Other practices showed some variations between Japan and other countries.

#### Supporting the Assessment of Students' Academic Readiness (Japan)

In Japan, Al-enabled remote exam monitoring systems and Al-enabled learning assessment systems are widely used to help assess students' academic preparation.

During the COVID-19 pandemic, AI-enabled remote exam monitoring system provided by several companies were used extensively by HEIs to prevent malpractice in online exams, but their use has declined as in-person testing has resumed. These systems were implemented in remote entrance exams for various types of admissions, including the General Entrance Examinations, Holistic Admissions, School Recommendation-based Admissions, and other special admissions. Universities that have reported using AI-enabled monitoring systems include Taisho University, Kanda University of International Studies, Japan University of Economics, and the University of Tokyo.

In order to ensure the academic readiness of students admitted through special admissions rather than General Entrance Examinations, the AI learning assessment system "atama plus" has been introduced at private universities. This system allows applicants to study the necessary academic content required by the university, with AI analysing their learning progress and results. Ritsumeikan University and Fukuoka Institute of Technology have started to implement the system as one of the requirements for Holistic Admissions since 2022. On the other hand, Aoyama Gakuin University has implemented the system in

E-ISSN: 2717-1426 Volume: 6 Issue: 4 DOI: 10.61882/johepal.6.4.184

#### Colloquium

2024 in its pre-enrolment education for students who are admitted through special talents in sports admission pathway.

#### Initial Application Screening (Overseas)

In the US, AI is increasingly explored for initial application screening and predicting an applicant's likelihood of admission, using various documents and data. Institutions like Georgia Institute of Technology are experimenting to replicate admissions decisions using machine learning techniques.

The University of Texas at Austin's Department of Computer Science implemented an AI system called *GRADE* (GRaduate ADmissions Evaluator) in 2013 to assist in evaluating Ph.D. applicants. This system aimed to streamline the admissions process by predicting the likelihood of an applicant's acceptance based on historical data. However, concerns arose that *GRADE* might perpetuate existing biases, potentially disadvantaging underrepresented groups. In response to these concerns, the department discontinued its use in early 2020.

#### Conclusion

As noted above, universities often do not fully disclose the specifics of their admissions processes. As a result, the findings of this study offer a snapshot of the landscape rather than a comprehensive account of all practices, nor are they exhaustive of current practices. Nevertheless, the results indicate a clear trend: Al is increasingly being utilized to streamline and enhance university admissions processes, particularly in document review and application communication, both in Japan and overseas. In addition, news articles reveal growing interest among institutions in experimenting with historical admissions data to explore broader applications of Al. This could mean that while human judgment continues to remain central, Al may play an increasingly significant role in higher education admissions worldwide.

Notably, these advances are largely being developed within existing admissions traditions and frameworks, shaped by national and institutional contexts. In Japan, AI has been used to support the assessment of academic readiness and performance, whereas in countries like the U.S., AI is more commonly used for the initial application screening and predictive modelling. As such, current practices are more likely to replicate or even exacerbate existing issues related to privacy, ethics, and social inequality inherent in admissions processes under prevailing frameworks and contexts.

Given that the EU AI Act (2024) identifies AI applications in admissions and educational assessment as high-risk, the use of AI in admissions requires strict adherence to transparency, data governance, and oversight requirements to ensure fairness and mitigate potential ELSIs. The paper concludes by highlighting the need for researchers and universities to address the ELSIs of AI-enabled admissions practices in both cross-cutting, and region-specific contexts, as they strive to streamline admissions processes that uphold equity, transparency and ethical standards.

#### **Acknowledgements**

The authors would like to express their sincere appreciation to the ELSI Center at the University of Osaka, Japan for its generous financial support of this research project. The authors also extend their gratitude to the research assistant, Mr. Nakano, for his assistance in searching for the news articles and cross-checking the results.

#### **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest.

#### **Funding**

This work was supported by The University of Osaka Research Center of Ethical, Legal and Social Issues, Japan.

#### **Human Participants**

There is no human participant in the study. The data of the study is publicly available. Further ethical considerations are observed in alignment with the authors' institution.

#### **Originality Note**

The authors confirm that the manuscript is their original work, and if others' works are used, they are properly cited/quoted.

#### Use of Generative AI/ AI-assisted Technologies Statement

The authors claimed that there is "No Use of Generative AI/ AI-assisted Technologies" in preparing this research.

#### References

Alothman, B., Alazmi, H., Ali, M. B., Alqallaf, N., & Khan, M. (2022). Accelerating university admission system using machine learning techniques. In *2022 Thirteenth International Conference on Ubiquitous and Future Networks (ICUFN)* (pp. 439-443). IEEE. https://doi.org/10.1109/ICUFN55119.2022.9829611

Bansode, T., Bhatt, D., Biradar, V., & Chavan, S. (2024). Forecasting futures: Predicting university admissions with machine learning. *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 8(5), 1-5. https://doi.org/10.55041/IJSREM33243

Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE Publications Ltd. EU AI Act. (2024). Annex III: High-Risk AI Systems Referred to in Article 6(2).

https://artificialintelligenceact.eu/annex/3/

E-ISSN: 2717-1426 Volume: 6 Issue: 4 DOI: 10.61882/johepal.6.4.184

#### Colloquium

- Feathers, T. (2019, August 20). Flawed algorithms are grading millions of students' essays. *Vice*. <a href="https://www.vice.com/en/article/flawed-algorithms-are-grading-millions-of-students-essays/">https://www.vice.com/en/article/flawed-algorithms-are-grading-millions-of-students-essays/</a>
- Intelligent. (2023, September 27). 8 in 10 colleges will use AI in admissions by 2024. https://www.intelligent.com/8-in-10-colleges-will-use-ai-in-admissions-by-2024/
- Lira, B., Gardner, M., Quirk, A., Stone, C., Rao, A., Ungar, L., Hutt, S., Hickman, L., D'Mello, S. K., & Duckworth, A. L. (2023). Using artificial intelligence to assess personal qualities in college admissions. *Science Advances*, *9*(41). https://doi.org/10.1126/sciadv.adg9405
- Van Busum, K., & Fang, S. (2023). Analysis of AI models for student admissions: A case study. In *Proceedings of the 38th ACM/SIGAPP Symposium on Applied Computing*. (pp. 17-22). <a href="https://doi.org/10.1145/3555776.3577743">https://doi.org/10.1145/3555776.3577743</a>

**Dr. Yan Li** is a Specially Appointed Associate Professor at the University of Osaka, Japan. She specializes in the sociology of education and holds a Ph.D. in Human Sciences, with her doctoral research focusing on the interplay of class, gender, and ethnicity in parental involvement in education in Japan. Since joining the Institute for International Initiatives in June 2023, she has been exploring how Information and Communication Technology (ICT)—including emerging technologies such as Artificial Intelligence (AI)—shapes internationalisation of higher education (HE), with particular attention to the interplay between digitalisation and internationalisation. In parallel, she has developed an interest in the responsible use of ICT in HE admissions that ensures Fairness, Accountability, Transparency, and Ethics (FATE), with the aim of contributing both to the internationalisation of HE and to the well-being of all stakeholders involved in the admissions process, including faculty, administrators, and students.

**Dr. Ariunaa Enkhtur** is an Associate Professor at the Institute for International Initiatives, The University of Osaka, Japan. Her research explores the internationalisation of higher education from multiple perspectives, including teaching and learning, academic mobility, and sustainable development. More recently, her work has examined the impact of Generative AI and digital transformations in higher education, from the hybrid perspectives of theories, practices, and policies.

This is an open access article distributed under the terms of the <u>Creative Commons Attribution-NonCommercial 4.0 International</u> (CC BY-NC 4.0) which allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator.