

News Release

Konica Minolta Launches tomoLinks, a Solution for School Education that Enables Educational Data to be Used to Meet the Needs of the Next GIGA Age

Offering Japan's First AI-based Educational Data Analysis Service for All Types of Teaching Tools

Tokyo (May 1, 2023) – Konica Minolta, Inc. (Konica Minolta) and Konica Minolta Japan, Inc. (Konica Minolta Japan) today announced that the companies officially launched tomoLinks®, a solution for school education, for educational institutions and companies across Japan. Following the “Learning Support” service, Konica Minolta today began offering the “Teacher × AI Assistant” and “Teaching efficiency analysis” services as a preview release on a presale basis, which will be made available in the market this summer. For



the past four years, Konica Minolta has been enhancing these services by continuing to implement them on a pilot basis in some schools, thereby helping these schools successfully introduce ICT solutions for their education. Notably, the “Teacher × AI Assistant” service is Japan’s first*¹ AI-based educational data analysis service that can be used with all types of teaching tools, both printed and digital. Konica Minolta will unveil a full range of its tomoLinks services at the Education Expo Japan (EDIX) to be held at Tokyo Big Sight from May 10, 2023.

In 2019, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) announced the GIGA School Program, stating that, like pencils and notebooks, PC terminals are essential items for school children living in Society 5.0.*² This program has helped greatly improve the ICT environment at schools. Today, there is growing demand for higher-level learning support services that can be used more easily and safely. As well, greater attention is being paid to how educational data can be used to meet the needs of the coming NEXT GIGA age, and specific measures are needed to merge cyber space and physical space in school settings in line with the concept of Society 5.0.

Against this backdrop, the tomoLinks system was developed as a new solution offering three kinds of services: the “Learning Support” service to facilitate students’ learning at school and at home in a consistent manner; the “Teacher × AI Assistant” service to offer optimal learning options to individual students based on an analysis of various learning data; and the “Teaching efficiency analysis” service to analyze the image data of classroom practices to help maximize learning effects.

Through tomoLinks, Konica Minolta and Konica Minolta Japan hope to contribute to improving education in Japan by carefully addressing the needs of teachers, students and parents and offering solutions to issues occurring in educational settings.

Values of the tomoLinks Services

1. Cloud-based learning support system that caters to the needs of teachers, students and parents and brings innovation to education in Japan

Since 2019, Konica Minolta has been developing the tomoLinks cloud-based learning support system by incorporating feedback from schools in its design. This system offers the following three kinds of services. These services, when introduced as an educational platform, allow teachers to better use educational data, as well as digital terminals, and promote individually-tailored study plans to maximize each student's potential.

(1) "Learning Support" service

With an interface that teachers, students and parents can operate intuitively and easily, this service supports students' learning both at school and at home through ICT-based interactive learning and distance learning and digitized parent-teacher communication notebooks, which are made available via a single platform.

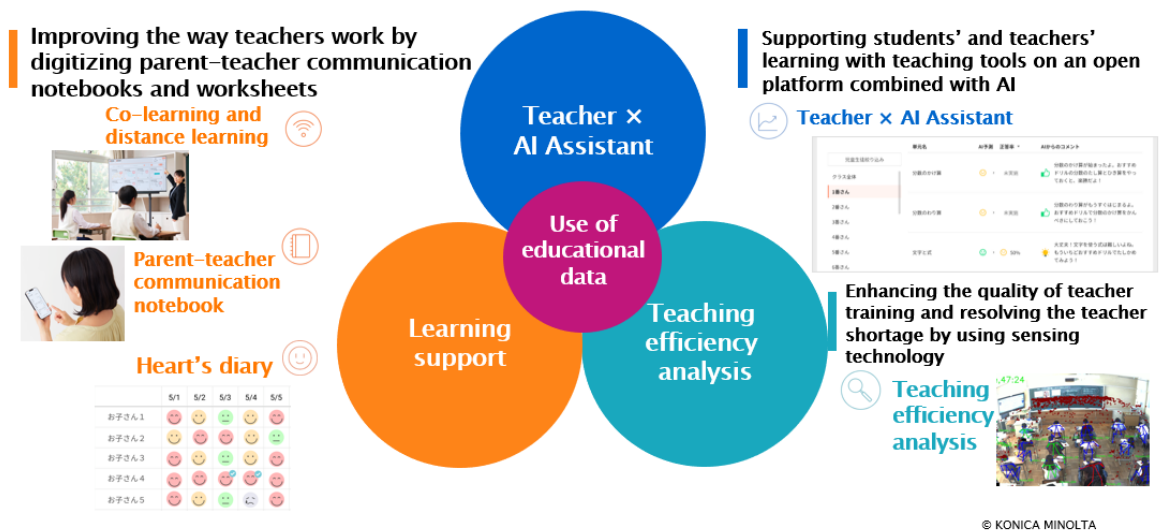
(2) "Teacher × AI Assistant" service

This service offers learning options tailored to each student's needs through AI-based analysis of individual learning achievements based on personal educational data.

(3) "Teaching efficiency analysis" service

This service analyzes the classroom teaching practices by AI and digitizes students' speaking and hand-raising and their eye movements. It also analyzes how teachers and trainee teachers use blackboards while teaching and how they check individual students by going around the classroom. By doing so, this service guides students to improve their learning achievements and helps teachers enhance their teaching ability.

Overview of the tomoLinks Services



2. Japan's first AI-based educational data analysis service that can be used with all types of teaching tools, both printed and digital

The AI-based tomoLinks "Teacher × AI Assistant" service is the first service in Japan that can be used with any type of teaching tool to analyze existing students' academic achievement data held by schools and new academic achievement data collected by educational companies for their digital teaching tools. This service was introduced on a pilot basis in elementary schools and junior high schools in Minoh City in Osaka Prefecture, where individually-tailored analysis AI models were developed based on 10 years of data of academic achievement surveys and home learning environment surveys involving some 13,000 students. As a result of using educational data gained from the AI-based analysis, it was found that more than 60% of students improved their academic performance, while the number of students using digital learning tools increased 5.5-fold. Unlike conventional systems that offer AI-based analysis services combined with specific teaching tools, the tomoLinks system can be used with any type of teaching tool, and thus can offer learning options best suited to individual students based on their learning history.

Currently, Konica Minolta is preparing to offer the tomoLinks system to several municipalities other than Minoh City to facilitate the use of its AI-based educational data analysis service in a manner tailored to the needs of local students. The company is also planning to offer the "Teacher × AI Assistant" service to educational companies. By combining their teaching tools with the "Teacher × AI Assistant" service, traditional teaching materials can be used for AI-based learning. To be specific, Konica Minolta is working with the following educational companies to offer a wider variety of teaching tools, while using the video contents of the "NHK for School" educational program:

- Cosmotopia Japan Inc.
- E-sia Co.,Ltd.
- Hiroshima Kyohan Co., Ltd.
- KENSETSU SYSTEM Co., Ltd. (KENTEM)
- Kyoikudojinsha Co., Ltd.
- TOKYO SHOSEKI CO., LTD.
- ZOSHINDO-JUKENKENKYUSHA Publishing Co., Ltd.

3. Konica Minolta's internal policy for safe and secure handling of educational data

With the tomoLinks system, Konica Minolta was among the first to comply with MEXT's learning log data handling policy, by drawing up its own data management policy to assure students and their parents that their personal data will be handled safely and securely. The company's policy includes prohibiting the use of personal data for system development and any other commercial purposes, and deleting personal data if requested by an education board or student's family and upon cancellation of the service. This policy applies also to the educational data acquired from the National Survey on Academic Achievements conducted on MEXCBT^{*3}, a computer-based testing (CBT) system of MEXT. In this light, the tomoLinks system can be used for academic achievement surveys that require consent to be gained from all participating students and their parents for the use of personal data.

4. EDIX 2023, a venue where visitors can learn the latest educational trends and try out cutting-edge teaching tools

Konica Minolta will participate in EDIX 2023 scheduled from Wednesday, May 10 to Friday, May 12, 2023 at Tokyo Big Sight to showcase the three tomoLinks services and give demonstrations of how these services work to allow visitors to get to know the services at an early stage of their introduction.

Information of EDIX 2023

<https://www.edix-expo.jp/hub/ja-jp.html> (Japanese)

*1: As of May 1, 2023. Based on Konica Minolta's internal survey.

*2: Source: "GIGA School Program," handout 1-1 of the sixth Special Committee Meeting issued by MEXT on February 21, 2020

*3: MEXCBT is a public computer-based testing (CBT) platform developed and provided by MEXT, which enables students to study and assess their understanding online at home or school using worksheets created by national, prefectural or municipal organizations.

*Product names shown above are registered trade names or trademarks of relevant companies.

For More Information

tomoLinks: <https://tomolinks.konicaminolta.jp/> (Japanese)