



KONICA MINOLTA

## News Release

### **Konica Minolta Establishes the Konica Minolta Group Basic Policy on the Use of Artificial Intelligence**

Tokyo (June 18, 2021) – Konica Minolta, Inc. (Konica Minolta) has established the Konica Minolta Group Basic Policy on the Use of Artificial Intelligence (AI Policy) to help improve the use of AI to build a better society.

Konica Minolta’s management vision is “Imaging to the People,” and the company has been striving toward the goals of “supporting people to achieve their own purpose” and “realization of a sustainable society.” To achieve this vision, the company has been actively using AI in the development of products and services, as well as in its corporate activities, including R&D, manufacturing and sales. However, the inappropriate use of AI can cause various problems, including privacy or human rights violations.

Against this backdrop, Konica Minolta established the AI Policy to share an understanding of the appropriate use of AI throughout the group and unite all its members in actively using AI to contribute to creating a better, human-centric society, to fulfill its responsibility as a global company.

Goals set forth in the AI Policy:

- ✓ To realize a society where people can pursue motivation and satisfaction in life
- ✓ To ensure safety and security
- ✓ To respect fairness
- ✓ To pursue transparency and accountability
- ✓ To work with stakeholders, creating the way for appropriate use of AI
- ✓ To foster human resources

For more details on the AI Policy, please visit:

<https://www.konicaminolta.com/about/csr/use-of-ai.html>

#### **Konica Minolta’s AI-Based Innovations**

##### **1. Imaging IoT that combines IoT and AI with optical devices and image sensing technologies**

Leveraging its proven track record of developing information and medical devices capable of high-speed image processing, coupled with its strengths as a manufacturer, Konica Minolta incorporates low-power-consumption, high-speed AI functions on the edge side (e.g., embedded devices and on-premises servers). In the field of human behavior analysis, the company has achieved both high-precision image recognition and high-speed processing capabilities that enable humans to be detected in static images, as well as estimation of 2D human pose. These capabilities are used in the following solutions.

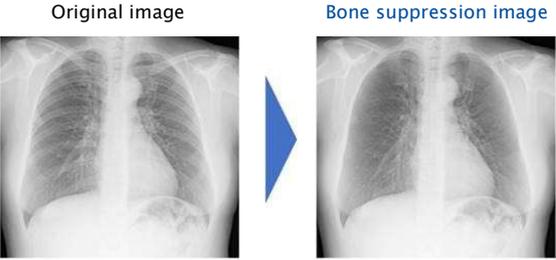
<b>HitomeQ Care Support service for care facilities</b>	
<p>A sensor mounted on the ceiling detects a resident's movements such as waking up, getting out of bed, falling from the bed, and stumbling, and sends a notification along with footage to the smartphones of care staff.</p>	 <p>The diagram illustrates the HitomeQ Care Support service. On the left, a box labeled 'DL 関節・頭部推定' (DL Joint/Neck Posture Estimation) shows a person sitting on a bed with blue lines indicating joint and head positions. On the right, a larger box labeled '姿勢推定' (Posture Estimation) shows six icons representing different postures: standing (立位), sitting (座位), lying (臥位), and others like '中腰' (middle back) and 'しゃがみこみ' (squatting). A blue arrow points from the DL box to the posture estimation box.</p>
<b>Ranalytic running form improvement system</b>	
<p>Designed for "citizen runners," this system estimates running posture in real time, and analyzes and visualizes the running form to help improve it.</p>	 <p>The screenshot shows the '分析結果' (Analysis Results) screen of the Ranalytic system. It displays several key metrics: '上下動 高低差 14cm' (Vertical movement height difference 14cm), '体幹・姿勢 全体 肩 脚 0° 31° 9°' (Trunk posture overall shoulder hip knee 0° 31° 9°), '顔の高さ 矢張り射の角度 167' (Face height arrow angle 167), and '遊脚の荒れ 膝と足趾の角度 3' (Striding roughness knee and toe angle 3). To the right, a 3D model of a runner is shown with yellow lines indicating the skeletal structure and posture.</p>
<b>Go Insight shopper behavior analysis service</b>	
<p>A camera mounted on the ceiling of a store collects data on shoppers' behavior at the shelf, including their attributes, items they pick up, and how long they stay at the shelf, to gain customer insights.</p>	 <p>The image shows a supermarket aisle with a camera mounted on the ceiling. Two shoppers are visible. The first shopper is identified as '5/女性/Teen/NA' (5 years old, female, Teen, NA). The second shopper is identified as '6/男性/Senior/NA' (6 years old, male, Senior, NA). Yellow lines and dots are overlaid on the shoppers, indicating the AI's tracking and analysis of their movements.</p>

In this way, Konica Minolta encourages the use of AI for creating diverse values and realizing a society where people can pursue motivation and satisfaction in life. The company is also committed to the appropriate use of AI by focusing on safety to avoid the potential negative impacts of AI on society and people.

## 2. Konica Minolta's R&D and product development using AI

Konica Minolta has introduced a data science approach to boost efficiency and innovation in the process of developing materials and functional chemicals, which conventionally requires much experimentation and trial production. In the development of high-polymer composite materials, the company has adopted the methodology of Materials Informatics. This requires the minimum amount of experimental data only, which is effectively combined with the structures and functions of chemicals using AI to drastically reduce the development period.

Konica Minolta also utilizes deep learning and other machine learning technologies for the development of various image recognition solutions. For example, the company has developed a solution to help doctors read chest X-rays by having AI analyze its proprietary database, recognize the clavicles and ribs, and then make these bones less obvious on radiographs.



Machine learning such as deep learning requires an enormous amount of sample data. Konica Minolta takes all possible measures to avoid improper use and leakage of personal information in handling these data sets. The company is also aware of the risk of some bias in its data sets and the consequences of machine learning, and is committed to preventing any discrimination from arising in society.

**3. Digital employees, Ieyasu and Litera**

Two digital employees are working at Konica Minolta. One of them is named RPA Ieyasu, which performs automated tasks using the Robotic Process Automation (RPA) system for human employees. Like human employees, RPA Ieyasu has its own employee ID and other system ID cards, and works in several locations. The other is a chatbot named Litera, which uses a service from Microsoft. Litera answers questions from members of the Konica Minolta Group in Japan about IT services 24/7. In order to promote digital manufacturing, the company assigns data scientists to its factories to effectively use AI in the production processes.

Everyone at Konica Minolta has opportunities to use AI. For this reason, the company strives to share the issues and values that underlie its AI Policy with all its members and encourage the appropriate use of AI, with a view to fostering human resources who can improve society, as well as AI specialists.

Konica Minolta will conduct corporate activities ethically as a leader in AI-based business development, in line with its management vision, "Imaging to the People."

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