

Legal and Ethical Status of AI in Japan

November 2022

AI and Law Society
International Exchange Working Group

Table of Contents

1.	Introduction.....	1
2.	Status of AI and AI Development in Japan.....	2
2.1	Market size of IT and AI.....	2
2.2	IT and AI human resources and BtoB structure.....	2
2.3	Development speed.....	2
2.4	Social acceptance of AI.....	3
2.5	Risk aversion.....	3
3.	Incidents involving Ethical Issues in the use of AI.....	4
3.1	Outline.....	4
3.2	An incident in which the use of AI to calculate the job offer decline rate became an ethical issue.....	4
3.3	An incident in which AI is used in HR assessment and wage determination.....	4
3.4	An incident in which AI predicts rent payment default.....	5
3.5	An incident in which AI is used for credit decisions.....	5
3.6	An incident of AI-based Security Cameras with Face Recognition Function.....	6
4.	Legislative system.....	7
4.1	Introduction.....	7
4.2	Various laws.....	7
5.	Formulation of AI-related guidelines and other soft laws in the government.....	12
5.1	Outline.....	12
5.2	Principles.....	12
5.3	Guidelines, etc. in the Government.....	13
6.	Initiatives in Academia and Businesses.....	18
6.1	Movements led by Academia.....	18
6.2	Initiatives at Various Companies.....	18
7.	Characteristics of the Debate in Japan.....	24
7.1	Values emphasized in Japan.....	24
7.2	Emphasis on consent.....	24
7.3	Incident Trends.....	24
7.4	Discussion on BtoB structure.....	24
7.5	Discussions in Academia and Industry.....	25

1. Introduction

This report introduces and analyzes the legal and ethical situation regarding AI in Japan. In particular, this report examines the impact of the situation in Japan and the gap between the situation in Japan and the way of dealing with AI ethics advocated mainly in the United States.

In Section 2, we overview the environment of IT and AI in Japan. In Section 3, we introduce cases considered to be AI-related ethical problems in Japan. In Sections 4, 5, and 6, we introduce the legal system and the efforts of the government and companies related to AI in Japan. Finally, in Section 7, the characteristics of the debate on AI ethics in Japan will be examined.

2. Status of AI and AI Development in Japan

2.1 Market size of IT and AI

Depending on the survey and the differences in measurement methods and other factors involved, estimates of the size of Japan's IT market in 2022 vary, ranging from about 20 trillion yen¹ to about 13 trillion yen². In contrast, the U.S. market is estimated to be 1.8 trillion dollars³. Because of the differences in measurement methods, a simple comparison cannot be made, but there is an undeniable difference in scale of approximately 10 times. Even if the difference in population is considered, there is still a large difference.

Also, looking at the AI market, the AI services market in Japan is estimated to be worth 270 billion yen, while the AI market in the US is estimated to be worth 13 billion dollars⁴. Again, there is a large difference between the two countries as well.

From the above, it can be inferred that Japan has invested less in AI development than the U.S., and that the diffusion of AI in Japan has not progressed as much as in the U.S. In addition, it has been pointed out on various occasions that Japan is lagging behind in the adoption of IT.

2.2 IT and AI human resources and BtoB structure

In Japan, the IT human resources needed for AI development are unevenly distributed among contract development firms. For example, according to a 2017 survey, about 70% of IT talent belongs to contract development firms, and only about 30% belong to firms that use IT systems⁵. In contrast, in the U.S., about 65% belong to companies that use IT systems. In Canada, the UK, Germany and France, companies that use IT systems also have more IT personnel. In other words, in Japan, if AI-using companies want to develop AI, they outsource the development to AI-developing companies. Thus, the AI industry in Japan has a strong BtoB structure.

For this reason, in Japan, development is often outsourced, without in-house production. In addition, there is a possibility that the amount of money mentioned in 2.1 above includes such outsourcing fees.

2.3 Development speed

In Japan, agile methods are rarely adopted as systems for rapid development, with a survey showing that as of 2016, 37% of respondents in Japan had experience in developing systems using agile methods, compared to 94% worldwide⁶.

This suggests that Japanese system development is slow, and the reason for this is the stable and risk-averse orientation of the development method (waterfall) that has traditionally been used.

¹ Hideki Miyanagi, "Domestic IT Market Forecast Update Considering the Impact of Corona, Market Size to Increase 4.2% YoY to 19.234 Trillion Yen in 2021 - IDC Japan Survey" (January 2022) (<https://cloud.watch.impress.co.jp/docs/news/1379164.html>)

² Yano Research Institute Ltd., "Survey on IT Investment by Japanese Companies (2021)" (November 2021) (https://www.yano.co.jp/press-release/show/press_id/2856)

³ CompTIA, "IT INDUSTRY OUTLOOK 2022" (2022) (<https://connect.comptia.org/content/research/it-industry-trends-analysis>)

⁴ Maximize Market Research, "US Artificial Intelligence (AI) Market - Industry Analysis and Forecast (2022-2029) - By Geography (U.S. and Canada)" (September 2022) (<https://www.maximizemarketresearch.com/market-report/us-artificial-intelligence-ai-market/11352/>)

⁵ Information-technology Promotion Agency, Japan, "White Paper on IT Human Resources 2017" (April 2017) (<https://www.ipa.go.jp/files/000059086.pdf>), p. 75.

⁶ The Japan Research Institute, Limited, "Toward Strengthening Service Innovation Capability: Issues in Japan as Seen from System Development" (January 2018) (<https://www.jri.co.jp/MediaLibrary/file/report/researchfocus/pdf/10279.pdf>)

On the other hand, the waterfall method is not usually used in AI model development. However, there are usually two parts of AI systems, i.e., the AI model and the system, and the waterfall method is used for the development of the system part.

2.4 Social acceptance of AI

Regarding the social acceptance of and trust in AI in Japan, there is no significant difference between Japan and developed countries such as the U.S., Germany and France⁷. However, there is a survey that shows that as of 2021, understanding and trust in AI are higher than they were three or four years ago, and people are showing a positive attitude toward AI⁸, suggesting that acceptance of AI is becoming more widespread. In 2020, the government conducted a detailed survey of consumer attitudes toward AI, and Japan is paying a great deal of attention to the public's attitudes toward AI.

2.5 Risk aversion

It is also widely pointed out that Japanese people tend to be risk averse. This tendency has led to a risk aversion tendency in AI operations as well.

For example, Softbank, a prominent IT company in Japan, uses AI for document screening, but all candidates rejected by AI are reconsidered by human staff. In Japan, too, AI is increasingly being used for document screening, but as far as the authors know, there are no cases in which hiring decisions are based solely on AI's judgment.

⁷ The World Economic Forum, "5 charts that show what people around the world think about AI" (January 2022) (<https://www.weforum.org/agenda/2022/01/artificial-intelligence-ai-technology-trust-survey/>)

⁸ MS&AD InterRisk Research Institute, Inc. "Survey on Acceptance of AI (Artificial Intelligence)-based Services, etc. Consumers' Image of AI Today is More Positive than Three to Four Years Ago" (February 2021) (<https://www.irric.co.jp/topics/press/2021/0205.php>)

3. Incidents involving Ethical Issues in the use of AI

3.1 Outline

There have been several incidents in Japan where the use of AI raised an ethical issue. Ethical issues were raised about the appropriateness of using AI from multiple viewpoints, such as privacy protection, transparency and fairness of evaluation and judgment by AI, and so on. Some of those incidents are introduced below.

3.2 An incident in which the use of AI to calculate the job offer decline rate became an ethical issue

In this case, Recruit Co., Ltd. and its group company Recruit Career Co., Ltd. which provided "Riku-Navi", a service that allowed students to browse job information from companies, used AI for calculating a score for the probability that a student who registered for the service might decline a job offer (the "Job Offer Decline Rate"). The resulting information was provided to companies without obtaining the consent of the students.

The Job Offer Decline Rate is very important information, as it could have an impact on the recruiting activities of the companies offering the jobs. The fact that Riku-Navi did not obtain the consent of the students for the provision of information on the Job Offer Decline Rate to the companies, and the fact that the number of students involved was over 25,000, attracted public attention (see Section 7 for a discussion of whether it is appropriate to address this case as an issue of consent).

After Recruit Career, the operator of Riku-Navi, was found to have provided students' personal information to third parties without their consent, it received two corrective recommendations from the Personal Information Protection Commission in August⁹ and December¹⁰ 2019 for violations of the Act on the Protection of Personal Information. In September 2019, Riku-Navi received administrative guidance from the Tokyo Labor Bureau for violations of the Employment Security Act¹¹. Furthermore, not only the Riku-Navi side but also the companies that received the scores of the Job Offer Decline Rate were given administrative guidance, on the grounds of improper actions under the Act on the Protection of Personal Information, for not properly notifying students or announcing the purpose of use of personal information.

3.3 An incident in which AI is used in HR assessment and wage determination

IBM Japan introduced a system, from September 2019, to support human resource assessment and wage determination using its AI, Watson. It was said that the system used data such as skill levels and business expertise to assess skills, base salary competitiveness, and performance and career potential, and also made proposals on wage determination¹².

The labor union has pointed out that this system raises ethical issues from the perspectives of employee

⁹ Personal Information Protection Commission, "Administrative Actions under the Act on the Protection of Personal Information" (August 2019) (<https://www.ppc.go.jp/news/press/2019/20190826/>)

¹⁰ Personal Information Protection Commission, "Administrative Actions under the Act on the Protection of Personal Information" (December 2019) (<https://www.ppc.go.jp/news/press/2019/20191204/>)

¹¹ Recruit Career Co., Ltd., "Guidance by the Tokyo Labor Bureau to the Company regarding 'Riku-Navi DMP Follow-up'" (September 2019) (<https://www.recruit.co.jp/newsroom/recruitcareer/news/pressrelease/2019/190906-01/>)

¹² JMITU Japan IBM Branch, "AI Unfair Labor Practices Case" (April 2022) (<http://www.jmitu-ibm.org/2022/04/8461.html>)

privacy, fairness and transparency of HR assessment, and the possibility of biased decision-making by AI¹³. IBM Japan has received a petition for relief, filed with the Tokyo Labor Relations Commission by the labor union, claiming that the company is not responding in good faith to collective bargaining regarding AI-based HR assessment and wage determination¹⁴.

3.4 An incident in which AI predicts rent payment default

Rease Inc., a venture company, uses AI to predict the probability of rent payment default and provides a service for rent liability guarantee companies to support tenant screening. The company's AI was created using data from more than 10,000 past tenant screenings and rent payment defaults¹⁵. The AI enables the rent liability guarantee company to screen tenants by referring to the probability of rent payment default, as calculated by the AI based on information about the attributes of the person to be screened (e.g., address, gender, age, nationality, marital status, place of employment, and type of work).

As the AI handles information of past rent payment defaults, it has been pointed out that use of the AI may raise ethical issues from the perspective of personal information handling. In addition, it has been pointed out that ethical issues may arise, first, from the perspective of transparency in the screening process because the basis for the probability of rent payment default calculated by AI is not clear, and second, from the perspective of fairness in the screening process because information such as gender and nationality is used in calculating the probability of rent payment default¹⁶.

3.5 An incident in which AI is used for credit decisions

J Score Co. Ltd., a joint venture company between Mizuho Bank and SoftBank, launched a service called "AI Score Lending" in September 2017 as a loan service based on AI-based credit decisions. Users can promptly obtain an AI score (credit score) about their own credit by answering simple questions related to, for example, annual income and length of employment, and then receive a loan limit and loan rate¹⁷. Similarly, several businesses have emerged that use AI-based credit functions¹⁸.

While the use of AI has the advantage of reducing the time required for credit decisions, it has been pointed out that the process of credit decisions is opaque and that there are issues from the perspective of privacy protection regarding credit decisions¹⁹. In addition, from the perspective of preventing excessive credit granting due to inaccuracy of credit decisions, the Installment Sales Act was revised in 2020, and provisions

¹³ JMITU Japan IBM Branch, "Irresponsible AI Operation Status: Report of the TMLRC Witness Examination" (July 2022) (<http://www.jmitu-ibm.org/2022/07/8553.html>)

¹⁴ JMITU Japan IBM Branch, "Japan IBM-AI Unfair Labor Practice Petition Seeking Transparency in Wage Determination" (April 2020) (<http://www.jmitu-ibm.org/2020/04/7687.html>)

¹⁵ ITmedia, "Is This Person Likely to Fall Behind on Rent? AI prediction shorten the time required for the tenancy screening process from 45 minutes to 16 minutes" (June 2021) (<https://www.itmedia.co.jp/news/articles/2106/22/news118.html>)

¹⁶ Katsue Nagakura, "Rent Arrears Prediction AI is under Petit Fire; Can Technology Solve the Problem of 'Fairness'?" (August 2021) (<https://xtech.nikkei.com/atcl/nxt/column/18/01743/080600001/>)

¹⁷ J.Score Corporation, "J.Score, a Joint Venture of Mizuho Bank and SoftBank, Launches Japan's First FinTech Service 'AI Score Lending' Today" (September 2017) (https://www.jscore.co.jp/company/news/2017/0925_01/)

¹⁸ For example, NTT DOCOMO, Inc. provides a service called "docomo Scoring," which analyzes big data such as usage of docomo services to calculate credit scores for financial institutions (NTT DOCOMO, Inc., "(Notice) 'docomo Lending Platform' for Financial Institutions Launched - Supporting the provision of new lending services with credit scoring and app-based repayment advice" (August 2019) (https://www.docomo.ne.jp/info/news_release/2019/08/29_00.html)). LINE Corporation also offers a service called LINE Score, which calculates a score using behavioral trend data on the LINE's platform in addition to the questions asked during registration, as well as its own lending service (LINE Corporation, "LINE, 'to make your everyday life a little richer', has launched its own scoring service, 'LINE Score'" (June 2019) (<https://linecorp.com/ja/pr/news/ja/2019/2759>)).

¹⁹ Tatsuhiko Yamamoto, "Challenges and Future of Credit Scores" (October 2019) (<https://www.keidanren.or.jp/journal/monthly/2019/10/p26.pdf>)

were established for AI-based credit screening methods. The details of the provisions will be explained in Section 4²⁰.

3.6 An incident of AI-based Security Cameras with Face Recognition Function

In July 2021, JR East announced the installation of security cameras with face recognition functions in stations and other locations as a countermeasure against terrorism during the Tokyo Olympics and Paralympics. It was reported that these security cameras would detect and identify (1) people who had been imprisoned for serious crimes committed in JR East stations in the past (former convicts released from prison, etc.), (2) suspects on the wanted list, (3) people acting suspiciously, etc.²¹. JR East has been receiving information on former convicts, etc. as described in (1) above based on the victim notification system that informs crime victims of their release from prison or their provisional release. However, in September of the same year, JR East announced that it would exclude people such as the former convicts in (1) from the detection targets of its security cameras, on the grounds that "there is no social consensus"²².

In relation to this issue, the Japan Federation of Bar Associations has submitted a written opinion proposing the need for legislation to regulate the creation of facial recognition databases and the use of facial recognition systems, etc., due to the need to prevent the violation of citizens' privacy rights²³. The Japan Federation of Bar Associations has published its chairman's statement calling on JR East to stop using its face recognition system generally, even after the company excluded people such as the former convicts from its detection targets²⁴.

²⁰ Ministry of Economy, Trade and Industry, "On the Law Partially Amending the Installment Sales Act (Law No. 64 of 2020)" (March 2021) (<https://www.meti.go.jp/policy/economy/consumer/credit/R2kaiseinogaiyou2.pdf>)

²¹ Yomiuri Shimbun Online, "[Original] Station Security Measures, Detecting Registered Persons with Facial Recognition Cameras...Including Some of Those Released from Prison" (September 2021) (<https://www.yomiuri.co.jp/national/20210920-OYT1T50265/>)

²² PRESIDENT Online, "'Surveillance cameras identify the faces of all passengers': What was wrong with JR East's exit detection system?" (October 2021) (<https://president.jp/articles/-/51210>)

²³ Japan Federation of Bar Associations, "Opinion on Legal Regulations for Face Recognition Systems Used in Government and Private Sector, etc." (September 2021) (<https://www.nichibenren.or.jp/document/opinion/year/2021/210916.html>)

²⁴ Japan Federation of Bar Associations, "Chairman's Statement Calling for the Discontinuation of the Use of Face Recognition Systems by Railway Operators" (November 2021) (<https://www.nichibenren.or.jp/document/statement/year/2021/211125.html>)

4. Legislative system

4.1 Introduction

While the EU's proposed AI regulation has been a hot topic recently, there is currently no "Artificial Intelligence Law" or "AI Law" in Japan that comprehensively covers AI and machine learning technologies. Of course, this does not mean that AI is unaffected by laws, and a wide range of existing laws can be relevant.

AI is a program run by a computer. Since building a model requires fitting data with learning algorithms, it is a prerequisite to consider the legal treatment of the program and data.

The laws that legally protect programs include intellectual property laws such as the Copyright Act and the Patent Act. Data cannot be subject to property rights because it is an intangible object (information), but it is important to be aware of the relevant laws because the handling of data under each law can be problematic, whether considering copyrighted works (Copyright Act), shared data with limited access (Unfair Competition Prevention Act), or personal information (Act on the Protection of Personal Information).

AI development contracts are often concluded between user companies and IT vendors. In the contract, various clauses related to the attribution of rights, terms of use, and liability are set forth, and knowledge of contract law (Civil Code) is necessary to understand them.

Furthermore, if some accidents occur as a result of AI-based products, tort law (Civil Code) and the Product Liability Act will become an issue, and if criminal liability becomes an issue, the Penal Code will also be involved.

As described above, even cursory consideration reveals many laws that could be relevant to AI. Since there is no comprehensive and exhaustive law at this point, it is essential to take an approach to examine the laws that may be relevant to AI, keeping in mind the nature of AI and its specific use cases.

4.2 Various laws

In the following, we will overview some of the various Japanese laws related to AI.

4.2.1 Copyright Act

Under the Copyright Act, a copyrighted work is defined as a creatively produced expression of thoughts or sentiments that falls within the literary, academic, artistic, or musical domain (Article 2, paragraph 1, item 1). Authors may enjoy moral rights and copyrights under the Copyright Act (Article 17, paragraph 1).

In addition, a program is defined as something expressed as a set of instructions written for a computer, which makes the computer function so that a specific result can be obtained (Article 2, paragraph 1, item 10-2), and is listed as an example of a work (Article 10, paragraph 1, item 9).

In light of the above, if the AI program is a copyrighted work, it would be protected under the Copyright Act. In addition, although an author under the Copyright Act refers to a person who creates a work (Article 2, paragraph 1, item 2), since many persons are generally involved in the development of an AI program, it is considered that the author is substantially determined according to who was involved in the creative expression of the AI program in question. However, since copyright itself is transferable based on a contract (Article 61, paragraph 1), it is considered important to clearly stipulate, in the contract between the parties concerned, who is the copyright holder²⁵. In addition, the author of a program (a work) created by a person

²⁵ Shinnosuke Fukuoka (ed.), "The Law of AI" (Shouji Houmu, 2020), p. 39.

engaged in the business of a juridical person in the course of its duties based on the initiative of the juridical person shall be deemed the juridical person unless otherwise stipulated in a contract, service rules or other rules at the time of creation (Article 15, paragraph 2).

On the other hand, data itself is not an instruction to a computer, and therefore cannot be called a program under the Copyright Act.

With regard to a dataset for learning, a database (i.e. an aggregate of data such as articles, numerical values, or diagrams, which is systematically constructed so that such data can be searched with a computer; Article 2, paragraph 1, item 10-3) that has creativity based on selection or systematic construction of information may fall under the category of a database work (Article 12-2).²⁶

With regard to the applicability of learned parameters in a learned model to the category of copyrighted works, there are issues, in particular, as to whether they can be said to be an expression of thought or sentiment and whether they are creative or not. While it is generally understood that the AI program itself does not have any thought or sentiment, there is an argument that the generation of the learned parameters itself may be said to be an expression of thought or sentiment in view of the involvement of humans in the design of the model and the learning method²⁷.

Incidentally, while the use of data is indispensable for the development of AI, it is necessary to ensure that that data use does not constitute copyright infringement against a third party if the third party has a copyright on the relevant data. In this regard, Article 30-4 was newly established in the 2018 amendment of the Copyright Act as follows.

(Exploitation without the Purpose of Enjoying the Thoughts or Sentiments Expressed in a Work)

Article 30-4 It is permissible to exploit a work, in any way and to the extent considered necessary, in any of the following cases, or in any other case in which it is not a person's purpose to personally enjoy or cause another person to enjoy the thoughts or sentiments expressed in that work; provided, however, that this does not apply if the action would unreasonably prejudice the interests of the copyright owner in light of the nature or purpose of the work or the circumstances of its exploitation:

- (i) if it is done for use in testing to develop or put into practical use technology that is connected with the recording of sounds or visuals of a work or other such exploitation;
- (ii) if it is done for use in data analysis (meaning the extraction, comparison, classification, or other statistical analysis of the constituent language, sounds, images, or other elemental data from a large number of works or a large volume of other such data; the same applies in Article 47-5, paragraph (1), item (ii));
- (iii) if it is exploited in the course of computer data processing or otherwise exploited in a way that does not involve what is expressed in the work being perceived by the human senses (for works of computer programming, such exploitation excludes the execution of the work on a computer), beyond as set forth in the preceding two items.

If the requirements of this Article are satisfied, the acts of recording copyrighted works in a database as learning data for the development of AI, and the acts of providing (transferring, publicly transmitting, etc.) collected learning data to a third party, provided that such use is limited to the purpose of developing AI, can

²⁶ Ministry of Economy, Trade and Industry, "Contract Guidelines for the Use of AI and Data - AI Edition" (June 2018), p. 25.

²⁷ Shinnosuke Fukuoka (ed.), "The Law of AI" (Shouji Houmu, 2020), pp. 48-51.

be performed without the permission of the copyright holder²⁸.

4.2.2 Patent Act

If a patent is obtained for AI, it can be protected by the Patent Act.

Under the Patent Act, the inventions that can be patented for AI are mainly: (i) a software patent for a program of AI as an invention of a program (Article 2, paragraph 3, item 1); (ii) information that (is not a program but) is used for processing by a computer and is equivalent to a program (specifically, an invention of data having a structure or data structure) (Article 2, paragraph 3, item 1 and paragraph 4); (iii) an invention in which a business method is realized by using information and communication technology (business-related invention)²⁹.

4.2.3 Act on the Protection of Personal Information

If the data falls under personal information, it is protected by the Act on the Protection of Personal Information. Personal information is defined as follows (Article 2, paragraph 1).

"Personal information" in this Act means that information relating to a living individual which falls under any of the following items:

- (i) those containing a name, date of birth, or other descriptions etc. (meaning any and all matters (excluding an individual identification code) stated, recorded or otherwise expressed using voice, movement or other methods in a document, drawing or electromagnetic record (meaning a record kept in an electromagnetic form (meaning an electronic, magnetic or other forms that cannot be recognized through the human senses; the same shall apply in the succeeding paragraph, item (ii)); hereinafter the same) whereby a specific individual can be identified (including those which can be readily collated with other information and thereby identify a specific individual)
- (ii) those containing an individual identification code

Personal data means personal information that constitutes Personal Information Databases, etc. (Article 16, paragraph 3), and retained personal data means personal data which a personal information-handling business operator has the authority to disclose, correct, add or delete the contents of, cease the utilization of, erase, and cease the third-party provision of, and which shall not be those prescribed by cabinet order as likely to harm the public or other interests if their presence or absence is made known (Article 16, paragraph 4).

The following figure shows the items that private business operators (personal information-handling business operators under Article 16, paragraph 2; "PIHBOs") should comply with³⁰.

²⁸ Copyright Division, Commissioner's Secretariat, Agency for Cultural Affairs, "Outline of the Amendment to the Copyright Act in 2008," NBL No. 1130, pp. 6-7.

²⁹ Shinnosuke Fukuoka (ed.), "The Law of AI" (Shouji Houmu, 2020), p. 91.

³⁰ Personal Information Protection Commission, "Basics of the Act on the Protection of Personal Information" (July 2022), p. 13.

<p>[Personal Information] Information about a living individual that can be used to identify the specific individual (e.g. a business card)</p>	<p>(1) Rules for Acquisition and Use</p> <ul style="list-style-type: none"> - The purpose of use shall be specified and the information shall be used within the scope of the specified purpose. - The purpose of use shall be notified or publicly announced. - It will not be used in a manner that is likely to encourage or induce illegal or unjust acts. - Personal information will not be acquired through deception or other wrongful means.
<p>[Personal data] (Personal Information Constituting Personal Information Databases, etc.) →Classified, organized, and searchable personal information (e.g. a business card in business card management software)</p>	<p>(2) Rules for storage and management</p> <ul style="list-style-type: none"> - PIHBOs will endeavor to keep the data accurate and up-to-date, and to delete the data when there is no longer a need to use it. - PIHBOs shall manage the information safely so that leaks, etc. do not occur. - To ensure safe management for employees and delegated contractors. - In the event of a leakage, etc., as specified in the Committee's Rules, a report shall be made to the Committee and the individual shall be notified. <p>(3) Rules on Provision of Information to Third Parties</p> <ul style="list-style-type: none"> - When providing information to a third party, the consent of the person in question shall be obtained in advance. - In the case of provision to a third party located in a foreign country, consent shall be obtained from the person in question in advance, after providing reference information. - When the information is provided to or received from a third party, certain matters shall be recorded.
<p>[Retained Personal Data] (Personal Data with authority to disclose, correct, suspend use, delete, etc.)</p>	<p>(4) Rules for handling matters to be publicly announced, disclosure requests, etc.</p> <ul style="list-style-type: none"> - To publicly announce matters such as the name of the business operator, purpose of use, and procedures for disclosure, etc. - When there is a request for disclosure, etc., from the person himself/herself, a response will be given. - Respond to complaints, etc. appropriately and promptly.

The Act on the Protection of Personal Information provides rules regarding the acquisition and use of personal information, storage and management of personal data, and provision of personal data to third parties, as well as rules regarding public disclosure of retained personal data and responses to disclosure requests, etc. Therefore, if the data used in AI training is the personal information, etc. listed above, it is necessary to consider the handling of such data under the Act on the Protection of Personal Information.

4.2.4 Unfair Competition Prevention Act

The Unfair Competition Prevention Act provides for the prevention of unfair competition and measures concerning injunction and compensation for damages in connection with unfair competition. Unfair competition includes infringement of trade secrets (Article 2, paragraph 1, items 4 - 10) and unfair acquisition

of shared data with limited access (Article 2, paragraph 1, items 11 - 16).

The term “trade secret” means technical or business information useful for business activities, such as manufacturing or marketing methods, that is kept secret, and is not publicly known (Article 2, paragraph 6). "Shared data with limited access" means technical or business information that is accumulated to a significant extent and is managed by electronic or magnetic means (meaning an electronic form, magnetic form, or any other form that is impossible to perceive through the human senses alone; the same applies in the following paragraph) as information to be provided to specific persons on a regular basis (excluding information that is kept secret) (Article 2, paragraph 7).

Thus, for example, if data pertaining to AI falls under the trade secrets or shared data with limited access under the Unfair Competition Prevention Act, it may be protected under that act.

In this regard, since there are cases where data shared with a third party does not meet the requirements of a trade secret, the 2018 amendment to the Unfair Competition Prevention Act newly defines the act of unfair acquisition of data provided to a limited number of counterparties while controlling such data with an ID and password as unfair competition and provides civil remedies. However, unlike trade secrets, the transfer of an object (such as an AI program) resulting from the use of shared data with limited access is not regarded as unfair competition because the degree of contribution of the data is not clear³¹.

4.2.5 Installment Sales Act

Credit card companies (comprehensive credit purchase intermediaries) regulated by the Installment Sales Act have become more sophisticated in their data analysis methods using AI, etc. This has increased the need for flexible credit evaluation based on each company's originality and ingenuity, instead of the standardized evaluation criteria set by laws and regulations.

Therefore, in 2020, the Installment Sales Act was revised, and comprehensive credit purchase intermediaries that have a calculation method and system that conform to standards specified by an Ordinance of the Ministry of Economy, Trade and Industry are authorized by the Ministry to use advanced technological methods such as AI in the calculation of estimated amounts payable (Article 30-5-4 and the following articles).

What is noteworthy here is that when advanced technological methods such as AI are used in the calculation of a customer's estimated amount payable, "information on the customer's ability to pay must not be used in a way that is likely to cause unjust discrimination, prejudice, or other significant disadvantage to the customer" (Article 62, paragraph 1, item 2 of the Ordinance for Enforcement of the Installment Sales Act).

No other credit regulations for the financial sector in Japan explicitly prohibit "unfair discrimination, prejudice or other significant disadvantage", and it is noteworthy that this is a new way of regulating credit.

4.2.6 Conclusion

As described above, Japan does not have laws that comprehensively regulate AI, but various laws could be relevant to AI programs and data. Therefore, it is necessary to consider these laws while taking into account the content and usage of the expected AI.

³¹ Intellectual Property Policy Office, Ministry of Economy, Trade and Industry, "Outline of the 2018 Amendment to the Unfair Competition Prevention Law," NBL No. 1126, pp. 16-17.

5. Formulation of AI-related guidelines and other soft laws in the government

5.1 Outline

In Japan, in general, soft laws such as AI-related guidelines have been established by the government based on the attitude that it is desirable to achieve the ideal state of AI design and operation through soft law, based on consideration of important principles such as human dignity, privacy, fairness, accountability, and transparency.

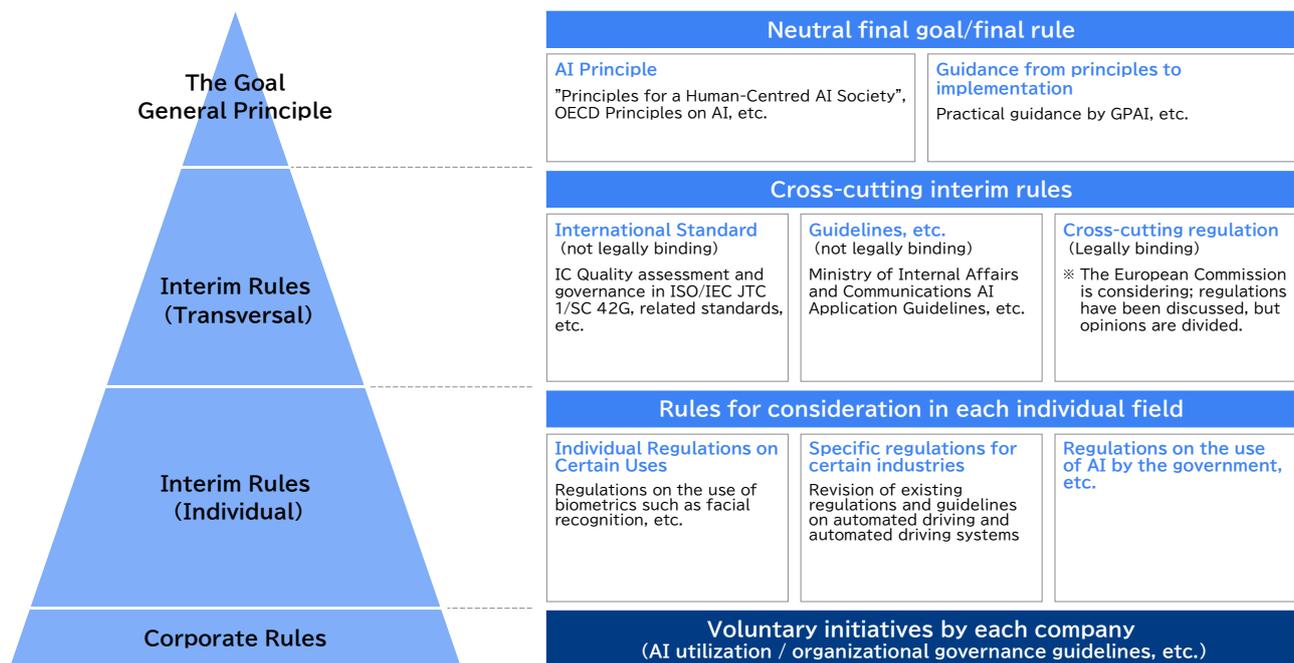


Figure 1 Conceptual diagram of rule formulation in Japan and abroad

Source: Based on PwC, "Trends in Governance Rules for AI Application: What Stance Should Companies, Governments, and Research Institutions Take (Vol. 3: Government Policies and AI Governance)" (<https://www.pwc.com/jp/ja/knowledge/column/technology-driven/technology-lab-insight07.html>).

5.2 Principles

5.2.1 Human-centered AI social principles

In March 2019, the Cabinet Office and Integrated Innovation Strategy Promotion Council compiled the Principles for a Human-Centered AI Society. This sets out the direction that Japan should take in the development of AI, the multilateral framework, and the national and local executive branches of government as they work towards this goal.

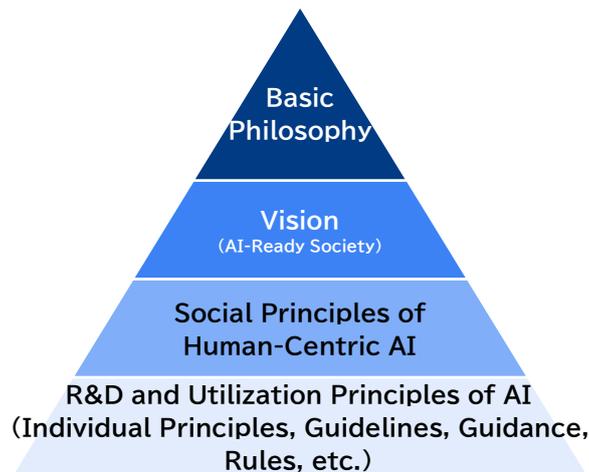


Figure 2 Conceptual diagram of human-centered AI social principles

Source: Based on "Principles for a Human-Centered AI Society" decided by the Integrated Innovation Strategy Promotion Council, Cabinet Office, Government of Japan, p. 3. (<https://www8.cao.go.jp/cstp/aigensoku.pdf>)

The decision by the Council for the Promotion of the Integrated Innovation Strategy explains at the outset that, as a basic principle, we should respect the following three values and build a society that pursues the realization of these values.

- (1) A society where human dignity is respected (Dignity)
- (2) A society where people with diverse backgrounds can pursue diverse happiness (Diversity & Inclusion)
- (3) Sustainability

The AI Social Principles are seven principles concerning the social framework that should be realized in an AI-Ready society, including the national government, local governments, Japanese society as a whole, and multilateral frameworks:

- (1) Human-Centric
- (2) Education/Literacy
- (3) Privacy Protection
- (4) Ensuring Security
- (5) Fair Competition
- (6) Fairness, Accountability and Transparency
- (7) Innovation

The Cabinet Office began holding, from 2020, the "Conference on Principles for a Human-Centered AI Society", where reports on domestic and international trends surrounding AI are continuously made, and opinions are exchanged on the future regulatory framework for AI.

5.3 Guidelines, etc. in the Government

Based on the concept of the Principles for a Human-Centered AI Society (decided by the Integrated Innovation Strategy Promotion Council in March 2019), AI-related guidelines, principles, and guidelines are

being developed by relevant government ministries and agencies. An overview of these is shown in the figure below.

Human-centered AI social principles
 Human-Centric (H), Education/Literacy (E), Privacy Protection (P), Ensuring Security (S), Fair Competition (C), Fairness, Accountability and Transparency (FAT), Innovation (I)

	Cross-field		Individual fields			
			Medical care	Agriculture	Education	Manufacturing
Intellectual Property Contracts	a. Report of the New Information Property Study Committee [March 2017 Intellectual Property] C,I	b. Contract Guidelines for the Use of AI and Data [June 2018, December 2019 METI] C,FAT,I		l. Contract Guidelines for AI and Data in Agriculture [March 2020 MAFF] P,C,FAT,I		
Use and application	c. Guidelines for AI Application [August 2019 MIC] H,E,P,S,FAT	d. Handbook for AI Utilization [July 2020 Consumer Affairs Agency] H,E,P,S,FAT	h. Relationship between the use of programs that use artificial intelligence to support diagnosis, treatment, etc. and the provisions of Article 17 of the Medical Practitioners Act [December 2018 MHLW] H		m. Accreditation system for AI education in universities and technical colleges [2021-2022 CSTI, MEXT, METI] E	n. Guidelines for AI Reliability Assessment in the Plant Safety Field [November 2010, March 2021 FDMA,MHLW,METI] FAT,I
Development	f. Draft of AI Development Guidelines for International Discussions [July 2017 MIC] H,P,S,C,FAT,I	g. Machine Learning Quality Management Guideline [June 2020 AIST, Cyber Physical Security Research Center, Artificial Intelligence Research Center] FAT,I	i. Evaluation index for medical image diagnosis support systems using artificial intelligence technology [May 2019 MHLW] S,FAT,I	j. Introduction of an approval system based on the characteristics of medical devices (Revised Pharmaceutical Affairs Law) [Dec. 2019 MHLW] FAT,I		
			k. Guidelines for the Development of Medical Imaging Support Systems (Revised) [December 2019 METI] C, FAT, I			

Figure 3 Formulation status of AI-related guidelines, principles, guidelines, etc. by relevant government ministries and agencies

*Red letters: Relevant sections of the Human-Centered AI Social Principles
 Source: Based on Cabinet Office, "Status of Formulation of AI-related Guidelines, Principles, Guidelines, etc. by Relevant Ministries and Agencies," p. 2 (Materials from the 1st meeting of the Conference on Principles for a Human-centered AI Society (FY2020)) (https://www.cas.go.jp/jp/seisaku/jinkouchinou/r02_dai01/siryol.pdf)

5.3.1 Cross-sector guidelines, etc. in the government

The main cross-cutting guidelines developed by the Government of Japan are outlined below.

(1) Guidelines on Intellectual Property Rights and Contracts, etc.

1) Report of the New Information Property Study Committee (Intellectual Property Strategy Headquarters) (March 2017)³²

The report examines the necessity and ideal form of IP protection for new information goods such as AI creations, 3D data, and databases whose creativity is difficult to recognize, focusing on the value created by providing them to the market, and proposes a direction for promoting data utilization.

2) Contractual Guidelines for the Use of AI and Data (Ministry of Economy, Trade and Industry) (June 2018, December 2019)³³

In concluding data contracts and contracts for the development and use of AI, this report presents for

³² Intellectual Property Strategy Headquarters, "Report of the New Information Property Study Committee" (March 2017) (https://www.kantei.go.jp/jp/singi/titeki2/tyousakai/kensho_hyoka_kikaku/2017/johozai/houkokusho.pdf)

³³ Ministry of Economy, Trade and Industry, "Contract Guidelines for the Use of AI and Data, Version 1.1" (December 2019) (<https://www.meti.go.jp/press/2019/12/20191209001/20191209001.html>)

reference the basic concepts that contractors and related parties should have a common understanding of, as well as factors to be considered when concluding contracts, model contracts, etc.

(2) Guidelines for Utilization, etc.

1) Guidelines for AI Utilization (Ministry of Internal Affairs and Communications) (August 2019)³⁴

The Ministry of Internal Affairs and Communications (MIC) has held the AI Network Society Promotion Council since October 2016 to study social, economic, ethical, and legal issues related to AI networking. As one of the outcomes of the study of this Promotion Council, based on the principles of a human-centered AI society, the matters that AI users (AI service providers, etc.) are expected to pay attention to in the utilization phase are summarized and their explanations are described in this document.

2) Handbook for AI Utilization (Consumer Affairs Agency) (July 2020)³⁵

This handbook is designed to improve the basic literacy that consumers should acquire when using AI.

3) Governance Guidelines for Implementing the AI Principles (METI) (January 2022)³⁶

The guidelines are being developed as a management guide that companies can refer to when incorporating AI principles into their internal governance.

(3) Guidelines for development, etc.

1) Draft of AI Development Guidelines for International Discussions (Ministry of Internal Affairs and Communications) (July 2017)³⁷

The Ministry of Internal Affairs and Communications (MIC) has held the AI Network Society Promotion Council since October 2016 to study social, economic, ethical, and legal issues related to AI networking. As one of the outcomes of the study of this Promotion Council, the matters that AI developers are expected to pay attention to in the research and development stage are summarized and their explanations are described.

2) Machine Learning Quality Management Guideline (National Institute of Advanced Industrial Science and Technology (AIST), Cyber Physical Security Research Center, Artificial Intelligence Research Center) (June 2020)³⁸

³⁴ Ministry of Internal Affairs and Communications, "AI Utilization Guidelines" (August 2019) (https://www.soumu.go.jp/main_content/000809595.pdf)

³⁵ Consumer Affairs Agency, "Handbook for AI Utilization - To Use AI Wisely" (July 2020) (https://www.caa.go.jp/policies/policy/consumer_policy/meeting_materials/review_meeting_004/ai_handbook.html)

³⁶ Ministry of Economy, Trade and Industry, "Governance Guidelines for AI Principles of Practice Ver. 1.1" (January 2022) (https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/202201281.pdf)

³⁷ Ministry of Internal Affairs and Communications, "Draft AI Development Guidelines for International Discussions" (July 2017) (https://www.soumu.go.jp/main_content/000499625.pdf)

³⁸ National Institute of Advanced Industrial Science and Technology (AIST), "Machine Learning Quality Management Guidelines Released" (June 2020) (https://www.aist.go.jp/aist_j/press_release/pr2020/pr20200630_2/pr20200630_2.html) National Institute of Advanced Industrial Science and Technology (AIST), "Release of 'Machine Learning Quality Management Guidelines'" (<https://www.cpsec.aist.go.jp/achievements/aiqm/>)

The paper presents the concept of level setting, goals, and quality control methods for machine learning-based AI systems whose quality depends on training data and for which conventional methods cannot provide sufficient quality control, depending on the usage conditions and situations.

5.3.2 Guidelines, etc. by individual fields in the government

The government has been formulating guidelines, etc. in individual fields, mainly in the fields of medical care, agriculture, education, and manufacturing.

(1) Medical field

1) Relationship between the use of programs that use artificial intelligence to support diagnosis, treatment, etc. and the provisions of Article 17 of the Medical Practitioners Act (Ministry of Health, Labour and Welfare) (December 2018)³⁹

Even in the case of medical treatment using a program that provides diagnosis and treatment support using AI, the physician is the main entity that performs diagnosis, treatment, etc., and the physician is responsible for the final decision, and is notified that such medical treatment is performed as a medical practice under Article 17 of the Medical Practitioners Act (Act No. 201 of 1948).

2) Evaluation index for medical image diagnosis support systems using artificial intelligence technology (Ministry of Health, Labour and Welfare) (May 2019)⁴⁰

The purpose is to improve the efficiency of product development and expedite the approval review process by preparing and publishing technical evaluation indices, etc. to be used at the time of review in advance.

3) Introduction of an approval system based on the characteristics of medical devices (Amended Pharmaceutical and Medical Device Act) (Ministry of Health, Labour and Welfare) (December 2019)⁴¹

An approval system for medical devices that appropriately responds to the characteristics of medical devices that are continuously improved and enhanced and to technological innovation by AI, etc. was introduced (Article 23-2-10-2 of the Amended Pharmaceutical and Medical Device Act).

4) Guidelines for the Development of Medical Imaging Support Systems (Revised) (Ministry of Economy, Trade and Industry and National Institute of Biomedical Innovation) (December 2019) (in Japanese)⁴²

³⁹ Ministry of Health, Labour and Welfare, "Relationship between the use of programs that use artificial intelligence (AI) to support diagnosis, treatment, etc. and the provisions of Article 17 of the Medical Practitioners Act" (December 2018) (<https://www.mhlw.go.jp/content/10601000/000468150.pdf>)

⁴⁰ Ministry of Health, Labour and Welfare, "Publication of Next Generation Medical Devices Evaluation Index" (May 2019) (<https://www.mhlw.go.jp/content/10601000/000515843.pdf>)

⁴¹ Ministry of Health, Labour and Welfare, "Explanatory Materials for the National Conference of Directors of Health, Labour and Welfare Related Departments" (January 2020) (https://www.mhlw.go.jp/topics/2020/01/dl/7_iyakuseikatu-01.pdf)

⁴² Ministry of Economy, Trade and Industry and National Institute of Biomedical Research and Development, "Guidelines for the

This document summarizes key points for researchers and developers of medical image diagnostic support systems during their development. It combines two existing development guidelines into one, strengthens the description of AI technology, and is consistent with the principles of a human-centered AI society.

(2) Agricultural sector

1) Contract Guidelines for AI and Data in Agriculture (Ministry of Agriculture, Forestry and Fisheries) (March 2020)⁴³

Based on the Principles for a Human-Centered AI Society, the paper lays out the concept of rights among parties concerned, including farmers, in the research, development, and use of agricultural AI services, and presents a model contract. The purpose is to promote the research, development and use of agricultural AI services, while preventing the outflow of technology and know-how of farmers who cooperate in the development of models.

(3) Education

1) Accreditation system for AI education in universities and technical colleges (Council for Science, Technology and Innovation; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry) (2020-2021)⁴⁴

The government has established and is promoting the spread of a system to certify outstanding educational programs in mathematics, data science, and AI education that are recognized as graduation credits by universities and technical colleges.

(4) Manufacturing Field

1) Guidelines for AI Reliability Assessment in the Plant Safety Field (Ministry of Economy, Trade and Industry; Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare) (November 2010, March 2021)⁴⁵

These guidelines were created to present a method for appropriately managing the reliability of AI specifically for the plant safety field, and to promote the introduction of AI that has the potential to dramatically increase safety and productivity in this field, where safety is an important issue.

Development of Medical Image Diagnosis Support Systems (including those using artificial intelligence technology) 2019 (Guidance)" (December 2019)

(https://www.meti.go.jp/policy/mono_info_service/healthcare/iryuu/downloadfiles/pdf/47_guideline.pdf)

⁴³ Ministry of Agriculture, Forestry and Fisheries, "Contract Guidelines for AI and Data in the Agricultural Sector - For the Protection of Know-how in the Agricultural Sector and Promotion of Data Utilization" (March 2020) (<https://www.maff.go.jp/j/kanbo/tizai/brand/keiyaku.html>)

⁴⁴ Cabinet Office, "Study Council for the Accreditation System for Mathematical and Data Science and AI Education Programs" (<https://www8.cao.go.jp/cstp/ai/suuri/suuri.html>)

⁴⁵ Ministry of Economy, Trade and Industry, "Revised Guidelines for AI Reliability Assessment in the Plant Safety Field" (March 2021) (<https://www.meti.go.jp/press/2020/03/20210330002/20210330002.html>)

6. Initiatives in Academia and Businesses

6.1 Movements led by Academia

6.1.1 Example from JSAI - Development of the "Japanese Society for Artificial Intelligence Ethical Guidelines" (February 2017)

This chapter provides an overview of the movement of guideline formulation led by academic societies and private companies in Japan.

The Japanese Society for Artificial Intelligence (JSAI) was founded in July 1986 and has about 5,200 members (as of the end of March 2020)⁴⁶. The society established an Ethics Committee in 2014, and after the release of the draft Code of Ethics for Artificial Intelligence Researchers at the 2016 National Conference of JSAI and discussions based on it, JSAI released the "Japanese Society for Artificial Intelligence Ethical Guidelines"⁴⁷ in February 2017. This consists of nine items that serve as the basis for ethical value judgments for members of JSAI, including artificial intelligence researchers, and has a strong focus on the professional ethics of researchers. A particularly distinctive item is Article 9, "Abidance of ethics guidelines by AI"⁴⁸. This is a provision to make AI itself observe the ethical guidelines up to Article 8, assuming that AI will be a member of society. The purpose of this provision is to generate discussion on the ideal form of artificial intelligence that is recognized as a "member" of society.

6.2 Initiatives at Various Companies

6.2.1 Sony Example - Formulation of "Sony Group AI Ethics Guidelines" (September 2018, updated in April 2021)

In May 2017, Sony became the first Japanese company to join the Partnership on AI⁴⁹, a non-profit organization established to jointly work on AI technology awareness and to solve issues in human society, including ethical aspects.

In September 2018, the Sony Group established the Sony Group AI Ethics Guidelines⁵⁰. These guidelines focus on:

- Supporting Creative Life Styles and Building a Better Society
- Stakeholder Engagement
- Provision of Trusted Products and Services
- Privacy Protection
- Respect for Fairness

⁴⁶ The Japanese Society for Artificial Intelligence, "Admission Guide" (<https://www.ai-gakkai.or.jp/about/membership/>)

⁴⁷ Society for Artificial Intelligence, "Society for Artificial Intelligence Ethical Guidelines" (<http://ai-elsi.org/wp-content/uploads/2017/02/人工知能学会倫理指針.pdf>)

⁴⁸ Article 9 "(Request for Artificial Intelligence to Comply with Ethics) In order for Artificial Intelligence to be a member of society or its equivalent, it must be able to comply with the ethical guidelines on par with the members of the Society for Artificial Intelligence set forth above."

⁴⁹ Partnership on AI, "Partnership on AI is bringing together diverse voices from across the AI community" (2022) (<https://partnershiponai.org>)

⁵⁰ Sony Corporation, "Sony Group's AI Initiatives" (April 2021)

(https://www.sony.com/ja/SonyInfo/csr_report/humanrights/AI_Engagement_within_Sony_Group_Ja.pdf)

- Pursuit of Transparency
- The Evolution of AI and Ongoing Education

In the guidelines, “AI” refers to any functionality or its enabling technology that performs information processing for various purposes that people perceive as intelligent, and that is embodied by machine learning based on data, or by rules or knowledge extracted in some methods.

In addition, the Sony Group has established an AI Ethics Committee to ensure that Sony's AI applications and R&D are conducted in accordance with the guidelines and in a socially and ethically appropriate manner. Moreover, Sony has established an AI Ethics Office to provide expertise on AI ethics to Sony Group businesses, and has established an assessment system from the perspective of AI ethics.

6.2.2 Fujitsu Example - Formulation of the Fujitsu Group AI Commitment (March 2019)

Fujitsu Laboratories of Europe Ltd. is a member of AI4People⁵¹, the largest AI ethics body in Europe, and Fujitsu developed its own Fujitsu Group AI Commitment⁵² in March 2019. The commitment is based on Fujitsu's human-centric philosophy.

In addition, the Fujitsu Group External Advisory Committee on AI Ethics, which is comprised of external experts, was established in September 2019 as a way of receiving objective, third-party evaluations of the Fujitsu Group's AI ethics⁵³. Moreover, in January 2022, its AI Ethics and Governance Office was established to ensure the safe and secure deployment of AI and leading-edge technologies in society⁵⁴.

6.2.3 NEC Example - Formulation of the "NEC Group AI and Human Rights Principles" (April 2019)

NEC formulated the NEC Group AI and Human Rights Principles⁵⁵ in April 2019 as a policy to prevent and resolve human rights issues that may arise from the use of AI, and "AI provision and utilization prioritizing respect for human rights" has been identified as one of its priority management themes from an ESG perspective.⁵⁶

This policy focuses on

- Fairness
- Privacy
- Transparency
- Responsible to Explain
- Proper Utilization
- AI and Talent Development

⁵¹ Fujitsu Ltd, "Fujitsu Focuses on Social and Ethical Impact of AI with AI4People Forum" (May 2018) (<https://www.fujitsu.com/fts/about/resources/news/press-releases/2018/emeai-20180528-fujitsu-focuses-on-social-and-ethical-impact.html>)

⁵² Fujitsu Limited, "Fujitsu Group AI Commitment" (March 2019) (<https://pr.fujitsu.com/jp/news/2019/03/13-1a.pdf>)

⁵³ Fujitsu Limited, "Fujitsu Group AI Ethics External Committee Established for Safe and Secure Social Implementation of AI" (March 2019) (<https://pr.fujitsu.com/jp/news/2019/09/30.html>)

⁵⁴ Fujitsu Limited, "Establishment of the AI Ethics and Governance Office to Achieve Social Penetration and Ensure Trust in AI and Other Cutting-Edge Technologies" (January 2022) (<https://pr.fujitsu.com/jp/news/2022/01/28.html>)

⁵⁵ NEC Group, "NEC Group AI and Human Rights Policy" (April 2019) (<https://jpn.nec.com/press/201904/images/0201-01-01.pdf>)

⁵⁶ NEC Corporation, "ESG Perspective Management Priority Themes 'Materiality'" (<https://jpn.nec.com/csr/ja/management/materiality.html>)

- Dialogue with Multiple Stakeholders

In addition, NEC has established a "Digital Trust Business Strategy Department" and a "Digital Trust Advisory Council".

6.2.4 Hitachi, Ltd. Example - Formulation of "Principles guiding the ethical use of AI in its Social Innovation Business" (February 2021)

In July 2014, Hitachi created the post of personal data manager, who is responsible for managing privacy protection, and established a privacy protection advisory committee. In February 2021, Hitachi formulated its Principles guiding the ethical use of AI for the purpose of developing and implementing human-centered AI in social innovation business⁵⁷.

The Principles guiding the ethical use of AI consists of "Standard of Conduct" in the three stages of "Planning", "Societal Implementation", and "Maintenance", and the following seven items:

- (1) Safety
- (2) Privacy
- (3) Fairness, Equality, and Prevention of discrimination
- (4) Proper and responsible development and use
- (5) Transparency, Explainability, and Accountability
- (6) Security
- (7) Compliance

Here, AI (Artificial Intelligence) is a processing module, or a system that is constructed based on such processing module(s), that is capable of independently changing its output or processing method based on the data, information or knowledge learned.

6.2.5 ABEJA Example - development of AI policy and launch of the Ethical Approach to AI

A small number of venture firms have developed AI policies, and ABEJA is one of them. In addition to having developed an AI policy⁵⁸, ABEJA established a committee of external experts to discuss AI-related issues from an ethical and legal perspective, called the Ethical Approach to AI (EAA) in July 2019, and among the topics related to internal compliance, the committee will discuss matters related to "legal and ethical aspects of AI"⁵⁹.

6.2.6 Conclusion

A summary of the AI guidelines for each company is provided in the table below.

⁵⁷ Hitachi Group, "Lumada Data Science Lab" (<https://www.hitachi.co.jp/products/it/lumada/about/ai/ldsl/index.html#p05>)

⁵⁸ ABEJA, Inc., "AI Policy" (<https://www.abejainc.com/ai-policy>)

⁵⁹ ABEJA, Inc., "Discussing Ethical, Legal, and Social Issues of AI, Launch of Expert Committee 'Ethical Approach to AI'" (July 2019) (<https://www.abejainc.com/news/20190725/1>)

Table 1 Summary of each company's AI guidelines

Company	Guideline	Content
Sony	Sony Group AI Ethics Guidelines (https://www.sony.com/ja/SonyInfo/csr_report/humanrights/AI_Engagement_within_Sony_Group_Ja.pdf)	<ul style="list-style-type: none"> ● Supporting Creative Life Styles and Building a Better Society ● Stakeholder Engagement ● Provision of Trusted Products and Services ● Privacy Protection ● Respect for Fairness ● Pursuit of Transparency ● The Evolution of AI and Ongoing Education
Fujitsu	Fujitsu Group AI Commitment (https://pr.fujitsu.com/jp/news/2019/03/13-1a.pdf)	<ul style="list-style-type: none"> ● Providing value to customers and society with AI ● Strive for Human Centric AI ● Strive for a sustainable society with AI ● Strive for AI that respects and supports people's decision making ● As corporate responsibility, emphasize transparency and accountability for AI
NEC	NEC Group AI and Human Rights Principles (https://jpn.nec.com/press/201904/images/0201-01-01.pdf)	<ul style="list-style-type: none"> ● Fairness ● Privacy ● Transparency ● Responsible to Explain ● Proper Utilization ● AI and Talent Development ● Dialogue with Multiple Stakeholders
Hitachi	Principles guiding the ethical use of AI in its Social Innovation Business (https://www.hitachi.co.jp/products/it/lumada/about/ai/ldsl/document/ai_document_jp.pdf)	<ul style="list-style-type: none"> ● Safety ● Privacy ● Fairness, Equality, and Prevention of discrimination ● Proper and responsible development and use ● Transparency, Explainability, and Accountability ● Security ● Compliance
NTT DATA	NTT DATA Group's AI Guidelines (https://www.nttdata.com/jp/ja/-/media/nttdatajapan/files/news/release/2019/nttdata_ai_guidelines.pdf)	<ul style="list-style-type: none"> ● Realizing Well-being and Sustainability of Society ● Co-Creating New Values by AI ● Fair, Reliable, and Explainable AI ● Data Protection ● Contribution to Dissemination of Sound AI
Mitsubishi	Guidelines for Promoting AI	<ul style="list-style-type: none"> ● Solving social issues and realizing a future society

Company	Guideline	Content
Research Institute	Businesses (https://www.mri.co.jp/sustainability/governance/dia6ou00001oqqk-att/ai-guideline20191023.pdf)	<ul style="list-style-type: none"> ● Realization of a human-centered society ● Continuous improvement of technology ● Emphasis on transparency and accountability
OKI	OKI Group AI Principles (https://www.oki.com/jp/press/2019/09/z19033.pdf)	<ul style="list-style-type: none"> ● Respect for Human Rights ● Explanation and Transparency ● Dialogue and Collaboration ● Safety and Handling of Data ● Development of Human Resources
Nomura Research Institute	NRI Group AI Ethics Guidelines (https://www.nri.com/jp/sustainability/social/policies)	<ul style="list-style-type: none"> ● Engaging in Dialogue and Co-Creation with Stakeholders ● Advancement of AI and human resources development ● Respecting fairness ● Ensuring safety and security ● Protecting data and privacy ● Ensuring transparency
Panasonic	Panasonic Group AI Ethics Principles (https://news.panasonic.com/jp/press/jn220829-1)	<ul style="list-style-type: none"> ● Creating a better life and society ● Design, development, and verification for safety ● Respecting human rights and fairness ● Transparency and accountability ● Protecting customer's privacy
Ghelia	AI Code of Ethics (https://ghelia.com/company/code/#sec-ai-ethics)	<ul style="list-style-type: none"> ● Contribution to a better society and development of people's wealth and civilization ● Provision of trusted products and services ● Privacy protection ● Social implementation of AI and human resource development
Fujifilm	Fujifilm Group AI Policy (https://holdings.fujifilm.com/ja/sustainability/vision/policy/ai)	<ul style="list-style-type: none"> ● Accelerating New Value Creation ● Respecting Human Rights ● Ensuring Fair and Appropriate Use of AI ● Managing Information Security ● Ensuring Transparency ● Developing Human Resources
Konica Minolta	Konica Minolta Group Basic Policy on the Use of Artificial Intelligence (AI)	<ul style="list-style-type: none"> ● To realize a society where people can pursue motivation and satisfaction in life ● To ensure safety and security

Company	Guideline	Content
	https://www.konicaminolta.jp/about/csr/pdf/use-of-ai-basic-policy.pdf	<ul style="list-style-type: none"> ● To respect fairness ● To pursue transparency and accountability ● To work with stakeholders, creating the way for appropriate use of AI ● To foster human resources
ABEJA	AI Policy https://www.abejainc.com/ai-policy	<ul style="list-style-type: none"> ● The following items are listed as "Company-wide initiatives" <ul style="list-style-type: none"> ➤ Top management ➤ Acquisition of the latest knowledge ➤ Compliance with guidelines, etc. ➤ Employee training ➤ Establishment of external advisory committee

Source: AI and Law Society based on publicly available information

7. Characteristics of the Debate in Japan

To explain the characteristics of the legal and ethical debates on AI in Japan.

7.1 Values emphasized in Japan

Among the values listed as AI ethical values, in Japan, users and companies are highly interested in privacy, but not so much in fairness. The reason for this is unclear, but it may be that discrimination based on skin color has not been historically evident in Japan.

7.2 Emphasis on consent

Also, in Japan, there is a strong tendency to emphasize the consent of users and AI analysis targets. In addition, if consent is obtained in the terms of use, including the use of personal information, it is often treated as if consent has been obtained even without any special explanation. For example, in the Riku-Navi case described in section II, the problem was that the company did not obtain consent for the calculation of the unofficial resignation rate. However, in the first place, the question of whether or not to calculate something like the unofficial declination rate itself should have been originally asked.

Due to this tendency to emphasize consent, there is a strong belief that various actions can be taken if consent is obtained. At the same time, many lawyers believe that the consent of the subject should be obtained when profiling by AI.

In addition, because there is a strong tendency to obtain consent for various matters, consent is often contained in a single sentence of a lengthy terms of use, and obtaining consent tends to be a formality.

7.3 Incident Trends

The number of AI ethical incidents in Japan was introduced earlier in this report, but that number is small. This is probably due to the relative lack of progress in the adoption of AI in Japan and also the careful management of AI. For example, SoftBank Corp., which introduced AI in its recruitment selection process, has decided that if the AI rejects a candidate, the human resource manager will check the content and make a final decision⁶⁰. In addition, Mizuho Bank's credit AI, introduced in Section II, is also reported to have modified its algorithm to mitigate bias due to the existence of gender bias.

7.4 Discussion on BtoB structure

There is a claim that we should discuss the problem focusing on the BtoB structure in Japan. Because of the BtoB structure, the knowledge is divided between contract development firms, which have the knowledge of IT technology, and the companies that use AI, which have the knowledge about end users and the domain. It is often the AI developers who are most aware of and have knowledge on AI ethics, so AI developers need to explain AI ethical issues. And it is the company that uses AI systems that makes a decision about whether the company should take action to address AI ethical problems. If the explanation doesn't work well, actions to prevent AI ethical harm are not taken.

⁶⁰ Softbank Corporation, "Using IBM Watson in New Graduate Recruitment Selection" (May 2017) (https://www.softbank.jp/corp/group/sbm/news/press/2017/20170529_01/)

Guidelines that are aware of the BtoB structure, such as the guidelines on AI development introduced in Section 5, have been published.

7.5 Discussions in Academia and Industry

In Japan, while there are many discussions on AI ethics in the world of academia, mainly in universities, the industrial world is often unaware of the existence of ethical issues or unimplemented responses to ethical issues even if they are aware of them⁶¹. In the industrial world, AI ethics efforts are mainly focused on leading-edge companies with advanced AI applications.

This can be attributed to the low number of incidents mentioned earlier and the low number of AI deployments.

⁶¹ PwC Japan Group, "2022 AI Forecast (Japan)" (2022) (<https://www.pwc.com/jp/ja/knowledge/thoughtleadership/2022-ai-predictions.html>)

About the Authors

- Mr. Naohiro Furukawa
Attorney-at-law, ABEJA, Inc.

Mr. Naohiro Furukawa is a Japanese licensed attorney working for ABEJA, Inc., which is an AI start-up company in Japan. He is a graduate of the University of Tokyo and the University of Tokyo School of Law. He became a lawyer in 2010 and worked in some law offices and companies as in-house counsel. He also worked as a data scientist from 2017 to 2020 as he studied math, statistics, and Python. He now works as in-house counsel at ABEJA, Inc., which is one of the AI start-ups in Japan.

He founded the AI and Law Society in 2020 and is its representative. He wrote the book “Legal Affairs and Ethics of AI” and numerous AI-related papers and reports.

Contact: ai_and_international_relations@googlegroups.com; nf0825ml@gmail.com

- Mr. Yasuyuki Suzuki
Attorney-at-law, Hayabusa Asuka Law Offices

Mr. Suzuki is a lawyer licensed in Japan and New York. He is a partner at Hayabusa Asuka Law Offices and provides legal services for corporate matters, such as cross-border transactions, intellectual property, banking and finance, and commercial litigation. Mr. Suzuki has obtained an LL.B. from Keio University, an LL.M. from New York University, and an LL.M. from National University of Singapore. Mr. Suzuki started his career as a lawyer in 2008 at Hayabusa Asuka Law Offices. Since then, he has been handling intellectual property matters. His focus was on brand protection initially and then shifted to information protection in IT business. He worked in a law office in Hong Kong after his LL.M. in Singapore and New York in 2014. He has been supporting companies engaged in inbound and outbound businesses in Japan. He also worked in the Tokyo office of a European bank, where he was responsible for overseeing legal and compliance matters. With his experience in the industry, he has been supporting foreign direct investment projects in banking and finance business in Japan.

He joined the AI and Law Society in 2021 and is now a member of the International Exchange Working Group of the AI and Law Society.

- Mr. Toshiyuki Yamamoto
Attorney-at-law, Nishimura & Asahi

Mr. Yamamoto is a finance partner at Nishimura & Asahi. His main practice areas are asset management and derivatives. He handles various financial transactions, financial regulatory/compliance matters, regulatory defense matters, and foreign litigation. He obtained a B.A. in Environment and Information Studies from Keio University and a J.D. from Keio Law School.

Since 2009, as an attorney-at-law, he has been handling various financial transactions and financial regulatory/compliance matters, with a focus on asset management and derivatives, his main practice areas. He advises both domestic and foreign asset managers, financial institutions, and corporates on financial

regulation matters in the asset management and derivatives spaces, as well as on contract drafting, regulatory analyses, and development of internal controls for new product launches. Further, he has been involved in numerous cross-border finance transactions and investment transactions by fund operators. In addition to finance matters, he has extensive experience in handling regulatory defense matters and foreign class actions in cooperation with foreign law firms. Recently, his practical experience expanded to the FinTech space, such as digital securities, and he has been publishing articles and giving presentations on artificial intelligence/machine learning in relation to finance industries.

Prior to being registered as an attorney-at-law in 2009 and joining the firm, he worked at a Japanese credit rating agency and the Tokyo arm of a U.S. investment bank as a credit analyst in the securitization space. He is a Certified Member Analyst of the Securities Analysts Association of Japan and a Certified International Investment Analyst.

He joined the AI and Law Society in 2020 and is now a member of the International Exchange Working Group and a head of the Business Law and Regulation Working Group of the AI and Law Society.

- **Ms. Hisako Takahashi**

Attorney-at-law, Mitsubishi Research Institute, Inc.; ZeLo, a Foreign Law Joint Enterprise

Ms. Takahashi is a Japanese licensed attorney working for the Sustainability Division of the Mitsubishi Research Institute and for ZeLo, a Foreign Law Joint Enterprise. She has been engaged in formulating guidelines and organizing legal issues, mainly in the fields of advanced science and technology, including AI, and sustainability and energy. Ms. Takahashi is a graduate of the University of Tokyo and also the University of Tokyo School of Law. In addition, she earned an LL.M. in Environmental Law and Policy at Stanford Law School in 2015. Ms. Takahashi worked for several years as an attorney at Mori Hamada & Matsumoto, where she handled a variety of domestic and international legal issues. Following the Great East Japan Earthquake and the Fukushima Nuclear Power Plant disaster in 2011, she served as assistant director of the research project management team for the National Diet's Fukushima Nuclear Accident Independent Investigation Commission (NAIIC). In 2015, she was a Stanford University Schneider Fellow at the World Resources Institute in Washington, D.C., where as a member of the Global Energy Program she helped develop effective delivery of affordable and reliable energy service to those who need it.

She joined the AI and Law Society in 2020 and is now a member of the International Exchange Working Group of the AI and Law Society.

- **Ms. Shiori Komatsu**

Attorney-at-law, Nishimura & Asahi

Ms. Komatsu is a Japanese licensed attorney at Nishimura & Asahi, which is Japan's largest full-service international law firm, with more than 700 lawyers working in close collaboration at 18 offices around the world to offer unrivaled one-stop legal services. Ms. Komatsu was the recipient of the Tokyo Metropolitan Governor's Award in 2016 and also received a scholarship from the Masason Foundation, which certifies youth with high aspirations and exceptional talents as members, founded by Masayoshi Son, the Founder, Director, Corporate Officer, Chairman & CEO of SoftBank Group Corp. since 2018. After graduating from the University of Tokyo (B.A. in Law) in 2020, she was selected as a member of the World Economic Forum's Global Shapers Community and as a member of the Moonshot R&D MILLENNIA Program Brainstorming Team Investigation team for "Harmony of Humankind" through science and technology. She joined

Nishimura & Asahi in 2022, where she has engaged in M&A, startup investment, AI-related matters, and other corporate matters. She published her first book, “Shiori Komatsu’s Best Practices for Passing the Bar Exam and Preliminary Exam” in 2021.

She joined the AI and Law Society in 2021 and is now a member of the International Exchange Working Group of the AI and Law Society.

- **Mr. Tatsuya Tsunoda**
Attorney-at-law, Nishimura & Asahi

Mr. Tsunoda is a Japanese licensed attorney who has worked on various IT/online services matters, including those relating to privacy/data protection, consumer protection, and competition regulations, and frequently advises domestic and foreign startups/companies. He is also a Ph.D. candidate at the University of Tokyo. Mr. Tsunoda obtained an LL.B. from Keio University, Faculty of Law in 2011 and a J.D. from the University of Tokyo, Graduate Schools for Laws and Politics, School of Law in 2013. He was also an editor for the University of Tokyo Law Review (7th and 8th editions). Mr. Tsunoda has authored a number of publications in regard to AI and digital service regulatory matters, and he recently participated as a lecturer in a seminar titled “AI and Cybersecurity regulations in the U.S. and EU” hosted by the Cyber Security Study Group of ENNA Co., Ltd. (2022). He was also a presenter at a seminar titled “Cloud computing as key digital infrastructure to achieve Japan’s sustainable development goals (SDGs) challenge” at the “Sustainable Development and Law in Asia” event hosted by the Asian Law Institute (2022).

He joined the AI and Law Society in 2020 and is now a member of the Privacy and International Exchange Working Group of the AI and Law Society.

Legal and Ethical Status of AI in Japan

November 2022

AI and Law Society
International Exchange Working Group
