AI Observation Platform Report

November 2022 - GPAI Tokyo Summit

GPAI / THE GLOBAL PARTNERSHIP ON ARTIFICIAL INTELLIGENCE

I/ Introduction

The Observation Platform of AI in the Workplace conducts empirical investigations on real-life use cases of Artificial Intelligence systems at work. The objective of this approach is to understand AI systems in national, cultural, sectoral, organizational, professional and individual contexts. This allows us to highlight different processes of "AI socialization", i.e. how the promises and characteristics of AI systems meet and confront systems of norms and values that will give them meaning beyond the functional objectives motivating their integration.

To this end, since 2020, the AI Observation Platform has collected more than 130 use cases in Member countries, in all sectors, on all application forms, in many different professions. Our ambition is first to highlight the recurring issues raised by the integration of AI systems in organizations and jobs: design of an operational solution, inclusion of employees, ethical issues, mode of collaboration between machine and worker, change management, transformation of work, displacement of workers' values, health and safety, impacts on employment, unforeseen, desirable or undesirable effects…

While the theoretical impacts of AI at work are widely discussed, the real effects are still unknown. However, this knowledge is essential to simultaneously accelerate the deployment of AI in organizations and guarantee jobs that allow workers to live with dignity and find meaning in their professional activity.

The surveys take the form of semi-structured interviews with a use case protagonist: designers, executives, managers, users and social partners. The guide for this survey is both stable and dynamic:

- **Stable** because since 2020, its 5 pillars have remained unchanged:
  - Motivations for AI system implementation,
  - Participation of workers and the representatives in the process of defining, designing and developing the AI system,
  - Role of the Human-Machine Interface (HMI) in the implementation of the AI system,
  - Consideration of ethics in the design process,
  - The impact of the AI system on employment, work and organizations.

  This stability guarantees the robustness of our catalog in time and space.

- **Dynamic** because each year, Experts can add or modify the sub-dimensions of a pillar. This dynamism allows our catalog to adapt to the emergence of new issues and concerns of the international community:
  - In 2021, the questions related to human-machine interactions were reconsidered,
  - In 2022, the questions related to biases in data were clarified,
  - In 2023, the attention was focused on training issues.
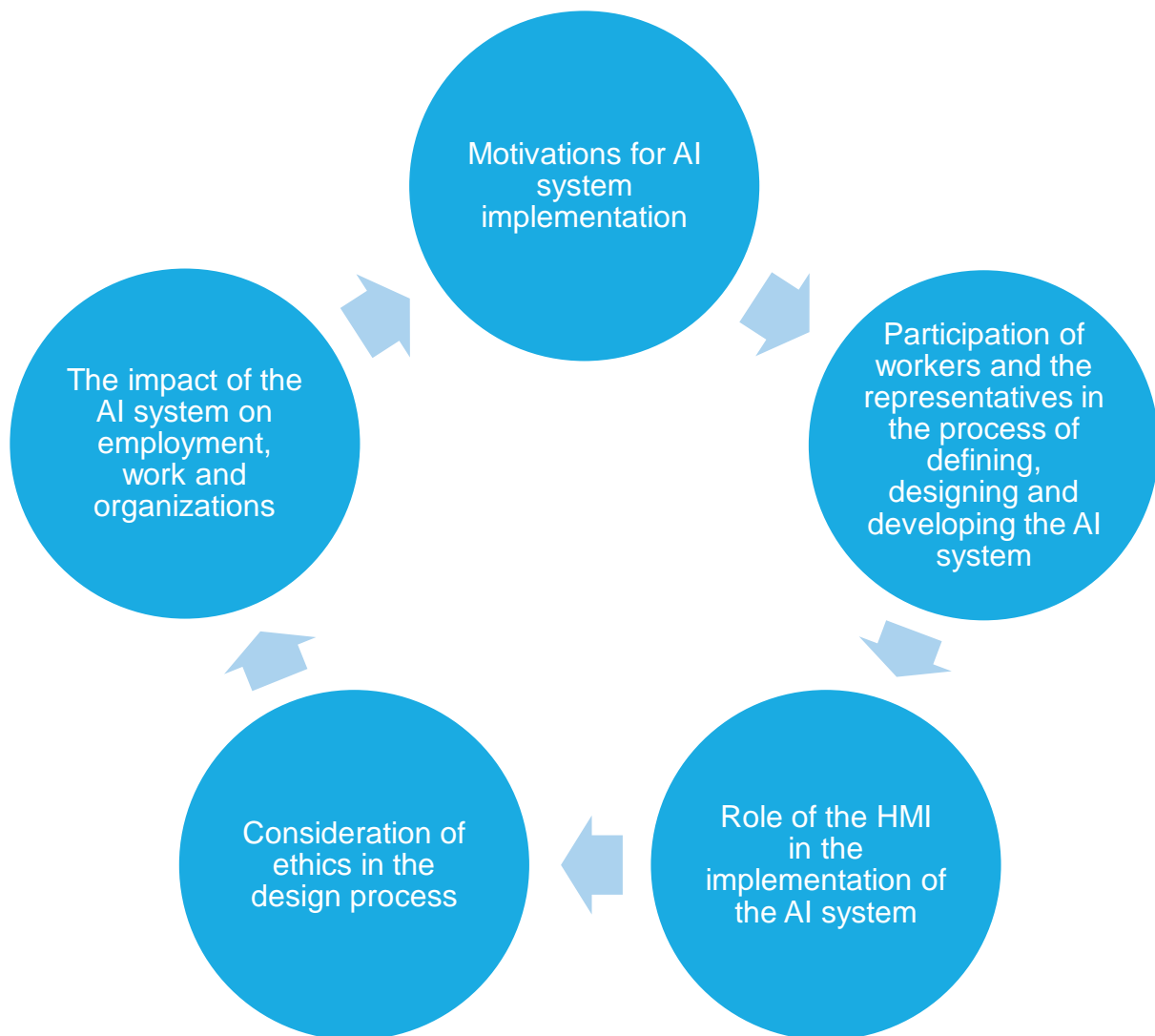
5 steady pillars to understand a use case

In 2020, four major observations have been identified from the catalog of use cases (see the 2020 WG report):

   a. A diversity of augmentation processes in organizations,
   b. The centrality of workers in the design of a professional application of AI,
   c. A large heterogeneity in the consideration of ethical issues,
   d. A modification in the value of human work that, depending on the context, weaken or strengthen the role of experts.

In 2021, seven recommendations were suggested based on practices reported from the field (see the 2021 AI Observation Platform report).

These recommendations were organized around three axes:

1. **The success of a use case**:
   a. Establishing methodological principles of a Proof of Concept beyond the performance of the AI system around organizational, social and practices issues,
   b. Encourage and improve the integration of academic research,
2. **Empowering the worker**:
   a. Define the right trade-offs between usability and user involvement,

      b. Build a situated explainability of an AI system,

      c. Develop a general AI training independent of a particular application,

3. Fair AI:
      a. Accompany use cases with an independent ethics committee,

      b. Diversify design teams to reduce bias in data.

In 2021, the GPAI Students' Community concept was created along with the GPAI Junior investigator status:

- A GPAI Junior Investigator is a student participating in the AI Observation Platform project by preparing, conducting and analyzing interviews,
- A Students' Community is a set of GPAI Junior Investigators grouped in a team (by country or even geography) and coached by one or more GPAI Experts/Specialists (ideally from the country or geographical area in question).

Two generations of Students' Communities have already been facilitated and three more are being planned:

- <u>First generation (2021):</u> 5 students from 7 countries, gathering 30 use cases and led by Yann Ferguson and John Hepburn,
- <u>Second generation (2022):</u> 9 students from Japan, gathering 12 use cases and led by Yuko Harayama and Arisa Ema,
- <u>Third generation (2023):</u> another from Japan, which would also be led by Yuko Harayama and Arisa Ema,
- <u>Fourth generation (2023):</u> from New-Zealand,
- <u>Fifth generation (TBC):</u> from India.

The GPAI Tokyo Summit in 2022 will be an opportunity (through a side event) to highlight these teams who can bring a new and fresh look at AI at work.

II/ The work of the Students' Communities

1/ The Students' Community concept

In forming this Community of Students, the Working Group had several goals:

1. Increase the number and quality of use cases in the catalog,
2. Offer a high-level international experience that enriches the students' skills,
3. Prepare the future generation of GPAI Experts.

GPAI Junior Investigators collect use cases at workplace in their respective countries, in the form of interviews. The Future of Work Working Group's Experts mentor these students, help them find use cases and analyze interviews. An additional activity of the GPAI Junior Investigators is to give feedback on their experience in order to prepare the next generations of students and thus, extend the Students' Community in time and in more countries.

2/ The Students' Communities organization

Behind these general principles, each Students' Community implements a different organization and management depending on the country and the Experts who lead them. Indeed, as this is a new approach and a global community, an effort was made to avoid locking the concept into a rigid method that would complicate its local implementation.

However, all Communities benefit from the same digital work environment and a Students' Community toolbox including:

- A welcome letter,
- Links to official videos describing the objectives of the GPAI,
- GPAI's ethical commitments,
- A description of the Students' Community concept,
- The Observatory questionnaire.

3/ The first Students' Community (2021)

The first generation of the Students' Community was international. It brought together the following students:

- Two from France: Anne-Charlotte Mariel and Louison Carroué,
- One from Italy: Sara de Martino,
- One French student living in Canada: Justine Dima,
- One Mexican student living in Spain: Alejandra Rojas Sierra.

The recruitment process respected two criteria:

- Interviewing skills,
- Knowledge about AI, especially about AI issues in the workplace.

This Community was supported by the WG in two ways:

- The plenary meetings allowed to share experiences and methodological discussions,
- Experts from their countries helped them to identify use cases.

The first generation's mandate included several tasks:

- Conduct 8 interviews on real use cases. These interviews had to be conducted in the language of the interviewee in order to facilitate the exchange,
- Transcribe and translate (into English) these interviews to make them available to the Working Group,
- Contribute to the analysis of the interviews. This analysis was carried out during a workshop during which students were asked to identify the best practices that, according to them, emerged from their use cases. The table below summarizes the workshop's focus,
- Contribute to the improvement of the methodology to extend it to the second generation of the Students' Community, which will include more GPAI Junior Investigators.

Each student conducted his or her interview alone. A meeting was organized after a few weeks to share experiences, express feelings about the method and make individual and collective adjustments.

All GPAI Junior Investigators received personal feedback allowing them to situate their contribution to this report. Indeed, student empowerment is one of this project's main goals.

4/ The second Students' Community (2022)

The second Community of Students is entirely Japanese. It has been led by teachers from Tokyo, Tohoku and Doshisha Universities:

- Yuko Harayama (Tohoku University)
- Arisa Ema (University of Tokyo)
  - Takashi Matsumoto (University of Tokyo)
  - Naoko Ikeda (University of Tokyo)
- Masayo Fujimoto (Doshisha University)
  - Rieko Ikeda (Doshisha University)
  - Mizuki Inoue (Doshisha University)

After an information session and a call for candidates, nine students expressed their interest:

- Seven from Doshisha University (Faculty of Social Studies): Hina Mori (3rd year), Misuzu Horii (3rd year), Ikuno Nagao (3rd year), Riho Shimizu (3rd year), Haruna Takabayashi (3rd year), Takahiro Saitou (3rd year), Mizuki Inoue (4th year),
- Two from the University of Tokyo: Ryu Kudou (Emerging design and informatics course, Graduate School of Interdisciplinary Information Studies) and Liu Yiwei (Graduate School of Arts and Science).

The team identified eleven areas they wanted to investigate: Translation services, Public administration, Education & Training, Infrastructure & Construction, Food industry, Customer services, Agriculture, Automobile, Finance, Information technologies & Broadcasting, Nursing services & Human resource services.

A team of 2 to 3 GPAI Junior Investigators was dedicated to each sector of activity. For each interview, the teams were assisted in a discreet way by a member of the management team.

Finally, the Students' Community drafted a survey report attached to this report: *Global Partnership on AI Future of Work Survey Report 2021. A Report and Recommendations from the Japan Survey*.

5/ The OECD AI Principles: inspiring practices for a responsible AI

For both Communities (and the following ones), the FoW Working Group Experts wanted to ask the GPAI Junior Investigators about the use cases and dimensions that inspired them the most with regard to the GPAI's objectives and more particularly the OECD principles on which they are based.

The OECD Principles on Artificial Intelligence promote Artificial Intelligence (AI) that is innovative and trustworthy and that respects human rights and democratic values. They were adopted in May 2019 by OECD member countries when they approved the OECD Council Recommendation on Artificial Intelligence[1]:

- **Inclusive growth, sustainable development and well-being**: This Principle highlights the potential for trustworthy AI to contribute to overall growth and prosperity for all – individuals, society, and planet – and advance global development objectives.
- **Human-centered values and fairness**: AI systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity, and should include appropriate safeguards to ensure a fair and just society.
- **Transparency and explainability**: This principle is about transparency and

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[1] https://oecd.ai/en/dashboards/ai-principles/P5

responsible disclosure around AI systems to ensure that people understand when they are engaging with them and can challenge outcomes.

- **Robustness, security and safety**: AI systems must function in a robust, secure and safe way throughout their lifetimes, and potential risks should be continually assessed and managed.
- **Accountability**: Organizations and individuals developing, deploying or operating AI systems should be held accountable for their proper functioning in line with the OECD's values-based principles for AI.

For the first Students' Community, this exercise took the form of a workshop during which the Junior Investigators expressed their position on the use cases around different criteria of the questionnaire:

- **Design process:**
  The process described seems particularly relevant to achieving responsible AI (co-design, open innovation, integration of independent external actors, participation of social partners, etc.).

- **Employees' personal data:**
  The use of employees' personal data reconciles respect for dignity and system efficiency.

- **HMI:**
  The HMI develops human capacities, facilitate work, decision making, integrate the human in the loop.

- **Ethics:**
  The integration of ethics in the design and use of the system contributes to responsible AI (the respondent demonstrates that ethical issues have been integrated in this use case).

- **Impact assessment:**
  A real upstream impact analysis has been undertaken, the method used could be duplicated to other cases.

- **Implementation:**
  The implementation processes facilitate the acceptability of AI while respecting the principles of responsible AI.

- **Reviews and adjustments:**
  The system is a success for the company and for the users, it is engaged in an improvement process that involves the workers, it reconciles the achievement of the goals and empowerment of the workers, it has unexpected benefits.

- **Highlight:**
  This application seems worth promoting to GPAI leaders because it merges qualities that go in the direction of a responsible AI at work.

The second Community used a different methodology by selecting four particularly noteworthy use cases and identified the OECD principles at work.

Two different methods have thus been tested. In the future, a single method could be consolidated in order to facilitate a cross-cultural and longitudinal analysis.

III/ Outcomes of the work of the Students' Communities - A fresh look on AI at work

1/ Overview of Students' Communities Analysis and Limits

The Students Communities identified many links between the OECD principles and the use cases they studied.
It is important to note that none of the single use cases gather all the OECD values. However, for each OECD value, there is at least one use case that complies with it.

Table 1

Inclusive growth, sustainable development and well-being:	Human-centered values and fairness	Transparency and explainability	Robustness, Security and Safety	Accountability
12 mentions	10 mentions	7 mentions	5 mentions	4 mentions

Second, it is sometimes difficult to distinguish what this analysis credits:

- The social value of the application, i.e., its social utility?
- The intrinsic characteristics of the system?
- Or the experience of the workers?

For example, an AI system may enhance personal and worker safety without the solution itself being robust and reliable.

Finally, most interviews were conducted with designers who tend to present their approach in a favorable light, especially when faced with a GPAI interviewer. Thus, these analyses should be viewed primarily as manifest intentions rather than observable, user-validated achievements.

2/ The first Students' Community report on the OECD principles contained in their use cases

i/ AI system mentioned as OECD principles compliant by the first Students' Community

The following table summarizes the use cases identified as complying with OECD principles by the first Students' Community.

Table 2

ITALY	USE CASE 1
	Video analysis application to help professionals improve the presentation and organization of their skills.

FRANCE	USE CASE 2	USE CASE 3	USE CASE 4	USE CASE 5	USE CASE 6
	Handling of messages posted online by residents of a big city: irritants, frustration, problem reports...	Search engine customized for the nuclear safety.	Prediction tool dedicated to the reduction of food waste in school catering.	Human resource chatbot that can help employees with basic questions.	Prediction of fashion trends.

CANADA/ USA	USE CASE 7	USE CASE 8
	Prediction system dedicated to recruitment based on resume analysis, questionnaires, videos (voice, no facial recognition), serious game... Handling of messages posted online by residents of a big city: irritants, frustration, problem reports...	Prediction system dedicated to recruitment based on resume analysis, questionnaires, videos (voice, no facial recognition), serious game...

SPAIN/ MEXICO	USE CASE 9	USE CASE 10	USE CASE 11
	Traffic prediction in transport and shops.	Visual recognition systems in garages or on the street to automate access control, traffic control, detection of stolen vehicles for any type of cars in the city, electric or gasoline cars.	Artificial Intelligence framework to facilitate cooperation between researchers and data scientists in health research.

ii/ Design process

Regarding the design process criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 1**

  The interviewee uses the collaboration with external Experts to hire competent specialists to join the company.

  "*Yes, we collaborate with researchers and external experts. More specifically we collaborate a lot with the University and with external researchers in private entities. This relationship is very useful also for the internal recruiting system of our company*"

  OECD principles with which it is compliant: Inclusive

- **Use case 3**

  The interviewee co-designed the use case with users and external experts.

  "*We tried several things and we got feedback from users, they said: "this is what we want, we don't want the number of letters, we want the number of notes, we don't see the colour at all, we want it on the abscissa". Sometimes the users wanted such and such a graphic and finally when we put it in place they said "oh it's useless". We did some tests, there were things that didn't take much time to set up, test them for a few weeks and remove them if they didn't work. As it's easy, we do it like that, the users see the evolutions and they say "ah they have met our expectations". It's the little things that make people do it, show them that*"

we're listening to them, even if it means going backwards, because in the end some of the functions aren't useful"

OECD principles with which it is compliant: Inclusive

- **Use case 8**

  The interviewee co-designed and integrated independent external actors: a lawyer, a professor and two researchers.

OECD principles with which it is compliant: Inclusive

- **Use case 6**

  The interviewee had a partnership with academics / PhD students while they were designing the algorithm.

  "PhD students from a French engineering school are working on the development of the algorithm"

OECD principles with which it is compliant: Inclusive

- **Use case 4**

  The interviewee made the code available on GitHub and the data is uploaded on an Opendata website. They initiated a reflexion on data and its use. The City in question was the first local community to adopt a local agreement of the use of data in 2019. This agreement takes into account GDPR, open data, AI and algorithmic transparency.

OECD principles with which it is compliant: Transparency

- **Use case 10**

  The interviewee collaborated with different Universities for topics that are not related with AI. The Universities provided knowledge about the problem, data needs and how to extract it. They mentioned that without Universities they couldn't have achieved the goal.

OECD principles with which it is compliant: Inclusive

iii/ Employees' personal data

Regarding the criteria on employees' personal data present in the questionnaire, the Students' Community shared the following results:

- **Use case 2**

  Employees' personal data are not used, but in the case of this city, users' personal data are included in the written solicitations, so they used another program to remove first name, surname, number and e-mail.

  "Not personal data of employees, but the tool works on the basis of requests written by inhabitants. They are analysed but not transformed. There is a modification, an anonymization of the data which is done beforehand on a separate program."

OECD principles with which it is compliant: Human values

- **Use case 8**

  A lawyer is present to guarantee that the laws are respected. They use personal data to ensure gender equality.

OECD principles with which it is compliant: Human values & Fairness

- **Use case 4**

  The interviewee chose by design to exclude any personal data from their algorithm and only to work on aggregated data.

  "*Employees personal data are not needed to develop the algorithm and the Data Framework forbids the use of personal data in algorithmic systems. So there is no data from canteen workers, canteen users (children) and no log history of the use of the tool.*"

OECD principles with which it is compliant: Human values

- **Use case 10**

  The interviewee has a data protection officer (DPO) within the company in charge of all data regulation. They also use Non-Disclosure Agreements and are very aware of European regulation.

OECD principles with which it is compliant: Human values, Accountability

iv/ Human Machine Interaction

Regarding the Human Machine Interaction criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 1**

  The use case aims to develop human capacities.

  "Our main assessment is augmentation because through the AI system we aim at increasing the workers skills and creativity. We enhance the human potentialities"

OECD principles with which it is compliant: Well-being

- **Use case 3**

  "*There is a tab for typing the search, the tool proposes a certain number of interesting follow-up letters that I can access. We also have a map with color levels, which allows us to see the level of inspection pressure. And on another graph we can see that we have a fairly constant control pressure (...) we can see that we have not lowered the control pressure.*"

OECD principles with which it is compliant: Well-being

- **Use case 5**

  The interviewee included a User Interface (UI) element to report anomalies.

  "*There is a red flag button in the chatbot UI to report inappropriate/erroneous answers.*"

OECD principles with which it is compliant: Transparency, Accountability, Robustness

- **Use case 4**

  The use case aims to foster better decision making without excluding human agents.

  The tool "*is designed to assist human decision, not to replace human agents*";

  "*The system helps canteen staff to decide the number of meals to order to the central kitchen. The main opportunity is to make more accurate estimations in order to avoid waste.*";

  "*The understanding of the system if very important: the users are provided with the main factors explaining the prediction.*"

OECD principles with which it is compliant: Transparency, Sustainable growth

- **Use case 10**

  The interviewee put emphasis on the usability of the app, so that it is enjoyable to use it.

OECD principles with which it is compliant: Inclusive

v/ Ethical factors

Regarding the ethical factors criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 1**

  "*The only ethical risk concerns the use of the personality test. More specifically I am worried that the personality test can influence and affect the carrier opportunities of the workers. For this reason, we have already forbidden to the work leaders to access to the personality tests. The risk, in other words, is that the personality test could be used to make recruiting staff or exclusions*"

OECD principles with which it is compliant: Fairness

- **Use case 4**

  Social fairness (poor schools vs. wealthy schools) was closely watched*.*

  "*Social fairness was taken into account during the development of the algorithm. There is a higher and more stable attendance in city center canteens, where families are wealthier. In poorer districts, attendance is weaker and more irregular. This irregularity was taken into account during the development by having a close look at overestimation and underestimation school by school, and not just at the overall level.*"

OECD principles with which it is compliant: Fairness

- **Use case 7**

  The interviewee explained that if they don't have enough quality data, they don't provide a score for a participant. If the answer is too short or if there is an error it is better not to score the interviewee, this way they can have a good quality control.

OECD principles with which it is compliant: Robustness, Accountability

vi/ Impact assessment

The first Students' Community has not identified any particular aspects linked to that principle.

vii/ Implementation

Regarding the implementation criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 3**

  The app is user-friendly, similar to a mobile application.

  "*No training was set up, this was a prerequisite of the project: that it be easy to use and that it be very intuitive, a bit like an application that you install on your mobile, that it be without instructions* "

OECD principles with which it is compliant: Inclusive

- **Use case 4**

  The interviewee involved workers in the beta testing to facilitate acceptability.

  "*This work was done with representatives of school kitchens and four workers from central kitchen.*" They also found someone that both had technical knowledge and knew the reality faced by workers that will use the tool to facilitate acceptability: "*In order to train canteen staff, we are looking for profiles that both have technical expertise and knowledge of actual canteen work. There is a cultural risk of a lack of interest from canteen staff if this training is delivered by someone too far away from their day to day work*"

OECD principles with which it is compliant: Inclusive

- **Use case 10**

  They organized internal seminars to talk about different topics so that the team had knowledge about different areas.

OECD principles with which it is compliant: Inclusive

viii/ Reviews and adjustments

Regarding the review and adjustments criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 3**

  The app is a support for emergency situations, it allows to search for information very quickly.

  "*We didn't imagine that this could have consequences on the process of emergency situations. When there are sites with discrepancies, we will immediately open the emergency center which will mobilize a whole team of experts within an hour or even a quarter of an hour to alert expert organizations. If there is a problem with a particular piece of equipment, we will ask for the latest inspections carried out on the site and the results of all the sites that could have the same equipment that is defective. Thanks to the tool, we can have the information in real time.*"

OECD principles with which it is compliant: Robustness & Safety

- **Use case 4**

  "*There are regular tests and audits to check the precision of the model on several past periods.*"

OECD principles with which it is compliant: Robustness

- **Use case 7**

  The interviewee set up quarterly checks with the customers. They talk about how the system is used, provide feedback, likes and dislikes and also a bias check and what can they do about it. They also have a yearly meeting.

OECD principles with which it is compliant: Robustness

ix/ Highlight

Regarding the highlight criteria present in the questionnaire, the Students' Community shared the following results:

- **Use case 1**

  The interviewee wants to use AI to improve the working conditions and aims to support the personal and professional growth of the workers by underlining the main and strongest skills of the workers. They aim to avoid the job substitution and an unfair use of the personality test made by the AI. In particular, the interviewee does not want its AI algorithm to be used to make discrimination or unfair hiring process in the HR departments.

OECD principles with which it is compliant: Well-being, Fairness

- **Use case 9**

  The CEO seems to really want to develop AI in a responsible and human-friendly way.

OECD principles compliance: Well-being, Human-values & Fairness

- **Use case 5**

   The interviewee is clearly way ahead of many organizations in terms of AI ethics. They built a strong framework, considering socio-economic biases, regarding open data, algorithmic transparency for the user, anonymous data, and open source of the code.

OECD principles with which it is compliant: Transparency, Fairness

- **Use case 11**

   Their algorithm is based on being explainable.

   "*Our technology will give you a potential answer to what you ask it and then you have to tell the system is this what you're looking for. Or do you want to take in multiple features, or you can also just do an hour to run and it will just give you the most simple model. And then you can say no, I don't want that, because it has an illegal feature and, thereby, that purpose is built into when you work with it*"

OECD principles with which it is compliant: Transparency, Accountability

3/ The second Students' Community report on the OECD principles contained in their use cases

The second Students' Community (from Japan) chose to highlight four use cases of AI in the workplace that are particularly noteworthy in their eyes.

i/ Assistance system for child safety - Well-being and Transparency

In one public sector child protection unit, a child safety support system is deployed. It provides a risk analysis of specific cases and is used by staff to assess the situation and decide on possible countermeasures.

"*When the risk assessment items are entered during the case response, a total of three are displayed: overall risk in numerical values, radar chart indicated by triangles, and similar cases in the past. The overall risk is the percentage of similar cases in the past that were temporarily protected, and the radar chart, shown as a triangle, shows the characteristics of the entered case, including the probability of recurrence, the number of days to respond, and the area covered by the triangle with the serious part at the top. In addition, using the simulation function, it is possible to check the change in the numerical value of the overall risk by changing the "yes" or "no" of the risk assessment items, and using the recommendation function, it is possible to display the contact information and the guideline for questions based on the child's developmental age.*"

OECD principles with which it is compliant:
- Inclusive and sustainable growth well-being: this AI system increases work speed and reduces staff physical and mental workload.
- Transparency: this AI system collects staff's input and provides feedback for the developers. When a discrepancy is found, the team tries to check what has caused the discrepancy and make the appropriate adjustment.

ii/ Automation of repetitive tasks and reduction of accidents - Safety and Well-being

Automation of machine and human tasks are promoted in construction site projects. A research division of a construction company leads the research and deployment. At a site where automated machines are introduced, a control room is set up to monitor and manage the

machines to ensure that they are working as planned.

> *"For ten years now we have been thinking about what kind of automated systems we can build. Our idea is that people should plan the work and leave the simple and repetitive tasks to the machines. For example, if one person could manage five machines, the problem of manpower shortage would be solved and productivity would increase. The absence of people around the machines would also prevent fatal accidents. We are working on the practical application of such a system. Several machines are working together. Considering that this work is repeated tens of thousands of times, it is more efficient to pattern and automate the work by machines rather than by humans. We consider this from two perspectives: (1) how to achieve automation of machine work, and (2) how to achieve planning and management of automated work"*

OECD principles with which it is compliant:

- Robustness & Safety: By introducing the automation at sites, work management and safety control procedures are adequately implemented.

- Transparency, Inclusive and sustainable growth well-being: They make efforts to develop and apply this use case in the most suitable way, to ensure that both automation and human tasks co-exist in the industry. The communication with site workers is at the same time well managed to ensure common understanding.

iii/ AI for translation - Human values and inclusive

This use concerns a real time translation system for video conferences developed by a start-up company. The company conducts research and development on digital cloning technology and provides each elemental technology separately as a SaaS service. These services include AI interpretation, AI minutes, and an AI call center. The beta version of the AI interpretation system was demonstrated during the interview.

> *"Many experts are invited to participate in each researcher meeting as advisors. For example, we have university professors participating in the meetings as CSOs. We are working together on the debriefing and review meetings. When we find a good paper, we immediately contact the author for consultation. I believe that what is important is not only technology but also philosophy and ethics. Therefore, I am also talking with experts in those areas. These days, I think those opportunities are more important";*
> *"It will allow people from all over the world, including Japanese people, to easily go out into the world that they have not been able to enter before,";*
> *"Opportunities increase through the use of AI, jobs that only human can do will expand, which are tasks which requires creativity, subtlety, and flexibility."*

OECD principles with which it is compliant:

- Human value and Fairness: The interviewee collaborated with experts in ethics and philosophy. Experts from various field are invited to participate in the process of research & Development as advisors. The company leader realizes that it is also important to consider aspects of philosophy and ethics, and not only technology.

- Inclusive and sustainable growth well-being: The product is developed with a clear vision set by the leader of the company : "It will allow people from all over the world, including Japanese people, to easily go out into the world that they have not been able to enter before," "Opportunities increase through the use of AI, jobs that only human can do will expand , which are tasks which requires creativity, subtlety, and flexibility."

iv/ AI for nursing care - well-being and human values

A home care support system for the elderly is developed and deployed through partnering nursing care facilities. The system uses sensors installed in the rooms to monitor the behavior of the residents and alert the staff if there is anything unusual. The sensors include door open/close sensors and motion sensors.

> *"The system uses sensors installed in the rooms to monitor the behavior of the residents and*

alert them if there is anything unusual. The sensors include door open/close sensors and motion sensors. There are three types of alerts: fecal incontinence, wandering at night, and abnormal temperature and humidity. In addition, it is possible to see who is in which room, the resident's photo, and the temperature, humidity, and air temperature in the room at a glance. It usually takes about two weeks for the AI to learn. There is a database, and the AI's predictive performance is adjusted by adding individual data. In order to collect additional learning data, there is the ability to receive feedback on whether the alert was correct. For example, when an alert for fecal incontinence is generated, the AI will provide feedback on whether there really was fecal incontinence or not. This feedback will be repeated to improve the accuracy of the AI"

OECD principles with which it is compliant:

- Inclusive and sustainable growth well-being: It has reduced the number of tasks of the nursing home staff and it makes them possible to spend more time on communication with residents.

- Human values and fairness, Inclusive and sustainable growth well-being: The product is designed in respect with personal information protection and in consideration of the independent life-style of the elderly people.