Future of Work
Working Group Report

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GPAI / THE GLOBAL PARTNERSHIP
ON ARTIFICIAL INTELLIGENCE

Co-Chairs Foreword

Since its establishment in 2020, the Global Partnership on Artificial Intelligence (GPAI) has been dedicated to guiding the responsible development and use of AI, anchored in human rights, inclusion, diversity, and democratic values. This international initiative unites experts from diverse sectors within four key Working Groups: Responsible AI, Data Governance, Future of Work, and Commercialization and Innovation.

A primary focus of the Future of Work Working Group (FoW WG) is to explore the impacts of AI deployment on working environments and the workforce. This group actively engages in understanding how AI can shape the future of work, aiming to enhance job quality, inclusiveness, and workplace health and safety. Comprising experts from various fields and regions, the group represents a diverse mosaic of perspectives. In 2023, the gender distribution within the group was 32% female and 68% male, highlighting an area for ongoing improvement in gender representation.

This past 2023 has been an intense year, both in terms of the actions and projects carried out, with an acceleration from June onwards. It has allowed the Experts of the FoW WG to revisit the priorities and content they wish to deliver to the AI Community.

The Experts have risen to the occasion, notably by:

- Publishing a Policy Brief on Generative AI and the future of work in addition to the 2023 FoW Workplan, thus responding to the increased urgency to mitigate the effects of Generative AI on the labour markets.

- Participating actively in the Montreal's Innovation Workshop in September, with 6 FoW Experts taking part out of the 19 GPAI Experts present.

- Setting up an ambitious workplan for 2024 and participating in the reorientation and all subsequent processes to improve the impact, practical value, and visibility of GPAI and the FoW WG.

As co-chairs, we are deeply grateful for the opportunity to lead and contribute significantly to the ongoing efforts of GPAI. Special mention to all the appointed members of the working group, to the external experts who have contributed to the various projects, and to the Paris Support Centre for its unfailing support in our work. We would also like to express our special gratitude to Uday B. Desai, a co-chair who left GPAI before the end of his mandate but who has helped to shape and support all the work reported here. His contributions have been invaluable. This unexpected circumstance has required Lucía Velasco to become actively involved as acting co-chair until the start of the official period for which she has been elected as a new co-chair in 2024.

Lastly, we would like to verbalize our commitment to promoting gender parity in this relevant global space. We are satisfied to see a gender balance in the co-chairs and project leads throughout the 2024 work plan. Our next goal is achieving parity in the expert community, a step that is crucial for ensuring diverse perspectives in shaping the future of AI.

We also extend our thanks to the MEG (Multi Expert Stakeholder Group) Chair, the Secretariat, and the Members of the GPAI for their sincere feedback on our work to date and in the future. Special gratitude goes to the co-leads of all the projects carried out by our Working Group this year, for their involvement, their agility, and their work for the benefit of workers around the world who are already beginning to see AI arrive in their environments.

Matthias Peissner   Lucía Velasco

2023 Key directions

Thanks to this strong community, we have been able to continue the following projects:
- The Observation Platform, which continued its work thanks to the students who were heavily involved in collecting case studies of AI in the workplace, this year in Japan and Mexico.
- The AI for Fair Work project, which has successfully implemented the AI for Fair Work principles that were drawn up last year, on concrete cases in the field in Europe and Africa.

During 2023, new projects were launched:
- XAI for education,
- CAST – Design Framework for AI Based Solutions.

The rapid development and advancements of Generative AI and its recognized effects on the labour markets, have caused the Working Group to deeply rethink the FoW WG strategy and priorities in 2023. New initiatives were raised to be carried out by the FoW WG.

New priorities of the Future of Work will be on:
- Sharing good practice and recommendations with decision-makers and policymakers,
- Conducting field studies and empirical research on what is happening in the workplace,
- Strengthening the focus on working conditions beyond developed countries in the global north.

This has led to a reconsideration of a part of the work that has already been initiated, particularly relating to the development of platforms and applications, as in the past with the AI Living Lab project.

Promoting a desirable Future of Work with AI, and in particular Generative AI

At the September plenary session of the Working Group, a topic was presented by Janine Berg (FoW Expert, ILO), _Generative AI and jobs: A global analysis of potential effects on job quantity and quality_. This presentation initiated a debate among the FoW Experts, which was followed by a new proposal for an article, in this case a Policy Brief, and concluded with the publication of the said article at the beginning of October, shortly after the Innovation Workshop in Montreal.

It proved the FoW WG's ability, within a month, to move from a plenary debate to a shared Policy Brief on behalf of GPAI Experts to the AI community. This _Policy Brief: Generative AI, Jobs, and Policy Response_ is accessible on GPAI's website. The sharing of this report on the networks also demonstrated AI's Community appetite for deliverables of this type from the GPAI.

This article raised the subject of the "Big Unknown", an important number of workers whose future depends on decisions yet to be made, and why it's an issue that needs to be addressed by governments as soon as possible. Furthermore, it led to a new FoW project proposal being included in the 2024 Workplan, aimed precisely at further analysing the "Big Unknown".

FoW Projects in 2023

Observation Platform of AI at the workplace

Launched in 2021, this project is aimed at observing AI at the workplace and analyzing its impact on workers. The project methodology involves recruiting and coaching students' communities, who conduct interviews with workers in their geographical area. The FoW WG provides the students with a common questionnaire and pays them for the use cases collected.

Since this project's inception, three generations of students have been hired from different countries, and two reports on the impacts of AI on workers have been published.

The project continued using the same questionnaire as previous years but, in 2023, saw some modifications in its methodology, by incorporating a new vision focused on gig workers (this year in Mexico).
The complete report is available at the link below.
It presents three studies, two conducted by the Students' Communities in Japan and Mexico, and a third from Yann Ferguson, a FoW Expert, that has included the perspective of LaborIA, a French initiative on AI at work.
Link to the AI Observation Platform Report

AI for Fair Work

Since 2021, this project has translated the OECD AI principles into concrete workplace standards to inform the practices of employers. This process of standard development initially began with a global stakeholder consultation, which generated a first version.
In 2023, the research team conducted two in-depth workplace studies to connect these standards to empirical data collected on the frontlines of AI system deployment. This process has allowed for a revision of the principles, conducted in association with research partner Fairwork.
Those new principles are:
1. Fair Pay,
2. Fair Conditions,
3. Fair Contracts,
4. Fair Management,
5. Fair Representation.

The complete annual report is accessible at the link below, and a second report containing the results of the two case studies is to follow in early 2024
Link to the AI for Fair Work Report

XAI for education

The XAI project has conducted a desk analysis in 2023, it has highlighted:
Competences concerning the challenges of the deployment of artificial intelligence in the workplace:
- the identification of the skills, resources and capabilities required to manage generative AI,
- the examination of the distortions of generative AI attributable to datasets and their construction processes,
- the exploration of the most suitable business and social contexts for implementing generative AI,
- the determination of optimal combinations of generative AI for various tasks/functions,
- the design of open-source artificial intelligence systems.

Urgent training needs related to the **upskilling and reskilling of AI-based knowledge management**. AI changes the way knowledge is produced and shared within systems and raises questions about how it intervenes and transforms work processes:
- awareness of job security risks and dangers (privacy issues),
- investment in the management of staff motivation and empowerment,
- implementation of policies aimed at employee welfare and protection of fundamental rights (anti-discrimination, data protection),
- making explicit the implications of artificial intelligence on the transformation of the nature of work.

CAST – Design Framework for AI Based Solutions

This year, the CAST team has drafted a framework for developing AI-based software systems that are both human-centric and autonomous. They aim to establish guidelines and principles based on software engineering practices to navigate the complexities of AI implementation.

Additionally, they recognized the need to incorporate responsible design practices, particularly in industries like aerospace and pharma, and emphasized on the importance of addressing engineering challenges promptly, by inspiring from existing best practices.

CAST team has delivered a functional demonstrator of CAST Portal, including interactive content for the most current version of the framework, CMS system and taxonomy based search. The version of the framework included in CAST Portal includes RAI guidelines based on AI for Fair Work principles, and select Use Cases from AI Observatory. The team plans to use the portal as a platform for the development and dissemination of the CAST framework in cooperation with GPAI experts and working group projects.

Ultimately, their goal is to provide a framework for building safe, transparent, scalable, and ethical AI-based software systems in the digital era, and offer guidelines for making Responsible AI practices actionable in design, development, deployment, and governance of AI based products and services..

Their complete annual report is accessible at the link below.
Link to the CAST Report

Conclusion and future projects

2024 Workplan Review

As the world of Artificial Intelligence (AI) keeps changing quickly, the FoW WG has been working hard to make sure its plans and activities stay relevant and contribute meaningfully to GPAI's mission of staying ahead in this rapidly evolving field. This active participation exemplifies GPAI's collaborative spirit and its commitment to leveraging AI for the benefit of all, ensuring that the organization remains at the cutting edge of global discussions and actions in this critical domain

An evaluation committee was established to reassess the 2024 Workplan, tasked with reviewing all proposals. Additionally, for the first time, a set of indicators was created to aid in the evaluation process.

- Project idea and expected outcome (clear proposal, practical, impactful, visible),
- Strategy (GPAI vision, FoW mandate),
- Consortium (expertise, diversity, collaboration/network),
- Project Management (Feasibility, budget, measurable outcomes/impact).

The projects presented below have been approved by the Working Group, and were in the process of being approved by the Steering Committee and the validation of the Executive Council at the time this report was written and submitted.

Empower AI Workers (EAIW)

This proposal is the continuation of the actual project, Observation Platform of AI at the workplace. It continues with the work from the Students' Communities in Mexico and Japan, and intends to launch new ones as in the US and possibly other ones in Latin American's countries.

In an era where AI permeates workplaces, it's crucial to ensure that workers aren't just bystanders but active participants in this transformation.

The project primary approach involves conducting in-depth interviews and participatory design sessions with workers. This will shed light on the current AI tools in their work environment and an understanding of their job context. AI tools tailored to genuinely empower them will be created with the student communities. The project team will also have workshops, educating workers on how they can harness the AI tools developed. In addition to hands-on training, these sessions will demystify the intricacies of AI, discussing its operational mechanisms, potential biases, and errors. By equipping workers with this knowledge, this project aims to empower those workers with a voice— enabling them to have informed discussions about AI's role in their professional lives and ensuring they play an active part in its future implementation.

Interviews are still intended to gather all kinds of AI use cases in the workplace across: Latin America, the US and Japan. These activities will be carried out by the Students' Communities. It's worth noting that the Universidad Nacional Autónoma de México (UNAM) and Northeastern University have generously committed to covering the costs associated with the AI tool implementations and the workshops (i.e., the steps following the understanding of the use cases).

AI for Fair Work

This proposal is the continuation of the already existing project. Next year, the project team will aim to leverage the Fair Work principles, regarding AI Data Pipeline workers in Latin America. In April-May 2023, the AI for Fair Work team conducted fieldwork with Sama in East Africa, studying the conditions facing workers who annotate the data that is used in the training of AI systems. This work highlighted that the global production networks that enable AI have the potential to conceal low-quality employment and unfair conditions in the Global South, whilst concentrating value in the Global North.

The next phase of the project consists in conducting a preliminary investigation into the working conditions of data annotation workers in the AI data pipeline in Latin America (LatAm), with a particular focus on setting up future research in Mexico, Argentina and Colombia. These countries all act as global hubs for the data annotation industry, which sells services to client firms mostly based in the Global North.

The study will employ a qualitative methodology, using 10 worker interviews, supplemented by desk research and management interviews, to examine the working conditions of data annotators at a LatAm partner firm. Workers and company representatives will be interviewed to gain insights into their experiences and practices. The data annotation firm studied will be awarded a score out of 10 based on the evidence gathered. This method design builds on 5 years of experience studying digital labour platforms in 39 countries as part of the wider Fairwork project.

Impact of generative models in the labour market in South America

The primary objective of this research is to investigate the influence of generative AI technologies on the workforce of selected South American countries, considering their economic vulnerabilities. The specific objectives are:

- To conduct a detailed assessment of the labour market in sectors most susceptible to AI-driven changes: call centers, sales, graphic design, copywriting, and software development.
- To examine the implications for wages, working hours, working conditions, and inequality within these sectors, with a particular emphasis on the potential for increased unemployment and wage disparity.
- To establish a comprehensive baseline of statistical data, refine the list of target countries and variables, and enable ongoing observation as the impact unfolds.
- To collect qualitative data through interviews with key stakeholders, adding depth to the quantitative data and providing a more nuanced understanding of the changes.

AI Literacy for Factory Workers

Artificial Intelligence is a daily part of our lives, impacting industries, societies and influencing the way we engage with technology for making our lives comfortable and meaningful each day. It has therefore become imperative to promote AI literacy to empower individuals at large, and the future and present workers in factories and industries, especially in the SME sector, who are impacted.

At the GPAI Innovation Workshop in Montreal in September 2023, the aspect of AI literacy to 'all' was identified as a priority. With AI likely to affect the future of work, workers and workplaces, AI Literacy, promoted from the early stages of formative education to lifelong learning, is key to fostering a strong and resilient society. It was emphasized that 'all' citizens are aware of the implications of AI for a future-ready society, especially for embracing innovation as well as for cultivating a responsible and ethical approach to AI.

The proposed project aims to develop and implement an AI literacy curriculum among all stakeholders in a phased manner, to ensure that all sections of the society are empowered with AI literacy to deal with the technology in their daily lives. The project highlights the need for designing and implementing AI literacy programmes for workers in the SME sector, in both the formal and informal enterprises, to train and create awareness to be better prepared for the future of work.

The Big Unknown - A Journey into Generative AI's Transformative Effect on Professions, starting with Medical Practitioners

The GPAI policy brief, *Generative AI, Jobs and the Policy Response*, revealed that generative AI can potentially transform work in a wide range of occupations. It showed that while some job tasks are highly exposed to potential automation, others are more likely augmented, while the effects on a third category, "the big unknown" are less clear. Effects on occupations also plausibly depend on country characteristics (e.g. economic development). This underscores the need for rigorous empirical evidence on how generative AI affects specific occupations in different countries. Such analysis can support governments, companies, and social partners in making decisions that foster productivity growth and decent work

AI implementation affects work and workers in different economic sectors. This technology is expected to have a significant and socially relevant impact, particularly in the healthcare sector. To what extent and how medical professionals can use generative AI to augment their own expert knowledge to improve their performance is an open question. Generative AI promises performance boosts, but many tasks in medical professions have limited tolerance for error, a strong ethical component and require a thorough understanding of decision-making processes, potentially limiting full AI automation. With randomized controlled trials (RCTs) in the Netherlands, Tanzania, and Indonesia this project aims to assess the potential augmentative effects of generative AI technology on the core tasks of medical professionals in two occupations: general practitioners, and nurse practitioners.

The design is scalable to different countries and occupations e.g., lawyers.

Generative AI and the Future of Work Dialogue: perceptions and prospects

Given the lack of empirical evidence and structured discussions on the impact of generative AI on the workplace and the labour force around the world, the project will seek to build a substantive body of evidence by complementing existing streams of theoretical (Gmyrek et al. 2023) and empirical research (ILO and Maastricht University Project). Leveraging the project's global network, a series of virtual and in-person roundtables and interviews will be launched, aimed at collecting evidence and ultimately discussing the emerging impact of generative AI on workers in different sectors of the economy, as well as in different parts of the world. More specifically, there will be structured discussions with international partners in India, Brazil, Kenya, the EU and the U.S. This project aims at:

1. Gathering evidence on current and upcoming impacts of generative AI on the organization of work in different sectors.
2. Assessing the likely impact of generative AI on job quality in different sectors.
3. Sharing recommendations for job design. The final report will present recommendations on how future jobs should be designed to enable human-AI complementarity and decent employment conditions.

Conclusion

In 2023, the Future of Work Working Group (FoW WG) of the Global Partnership on AI (GPAI) reached a critical turning point at the end of the initial 3-years-phase. Efforts were made to steer the projects toward more practical and impactful outcomes, showcasing the group's capability to enhance its influence and visibility within the AI community.

The intention is to persist in the collaborative progression of the FoW projects, engaging the expertise within the Working Group while also extending participation to the broader GPAI community and beyond.

The leadership period of the Working Group's Co-Chairs, Matthias Peissner and Uday B. Desai, has come to an end. Their commitment and contributions to the FoW WG have been substantial, and there is a collective anticipation for continued collaboration in the forthcoming years.

To conclude, Lucía Velasco and Alex Shee have been warmly welcomed as the newly elected Co-Chairs, with best wishes extended for the success of the FoW WG throughout 2024.

Annex A – FoW Participants

Future of Work Experts

Stefan Badža; Director of the Team for Special Projects at Office of the Prime Minister, Government of Serbia; Serbia

Janine Berg; Senior Economist at the International Labour Organization; Switzerland

Nicolas Blanc; CFE CGC National Digital Delegate; France

Manuel Cebrián; Max Planck Research Group Leader (W2); Spain

Uday B. Desai; Former Director and Emeritus Professor; The Indian Institute of Technology Hyderabad; India

Arisa Ema; Associate Professor at the University of Tokyo; Visiting Researcher at the RIKEN Center of Advanced Intelligence; Japan

Yann Ferguson; Sociologist at Institut Catholique d'Arts et Métiers; The Toulouse Institute of Technology; France

Jenny Grensman; International secretary at Sveriges ingenjörer/The Swedish Association of Graduate Engineers; Sweden

Yuko Harayama; Former Executive Director in charge of international affairs at RIKEN; Japan

Marek Havrda; AI Policy & Social Impact Director at GoodAI; Czech Republic

Rina Joosten; entrepreneur, board member and publicist, Seedlink Technologies; Netherlands

Bogumił Kamiński; Warsaw School of Economics; Poland

Suleyman Serdar Kozat; Professor at Bilkent University; Türkiye

Johan Moesgaard Andersen; EU Director and International Relations at Danish Metal-Workers Union; Denmark

Matthias Peissner; Director, Head of Research Area Human-Technology Interaction; Fraunhofer Institute for Industrial Engineering (IAO); Germany

KingWang Poon; Director of the Lee Kuan Yew Centre for Innovative Cities; Senior Director for Strategic Planning at the Singapore University of Technology and Design; Singapore

Saiph Savage; Assistant Professor at Northeastern University; & Universidad Nacional Autonoma de Mexico (Mexico); Mexico

Fernando Pablo Schapachnik; Associate Professor at Dept. of Computer Science, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires; Argentina

Alexandre Shee; Global AI Executive at SAMA; Canada

Basheerhamad Shadrach; Director at CEMCA, Commonwealth of Learning; India

Márcio da Silva Arantes; Researcher at SENAI; Brazil

Borys Stokalski; Seed investor of VersaBox; Co-founder and partner at RETHINK; Poland

Risto Uuk; Policy Researcher at the Future of Life Institute; Estonia

Lucía Velasco; Policy Fellow at the School of Transnational Governance; European University Institute (EUI); Spain

Kyoko Yoshinaga; Project Associate Professor of the Graduate School of Media and Governance, Keio University; Japan

Future of Work Observer

Stijn Broecke; Senior Economist (Future of Work) at the OECD