PARLAMENT DE CATALUNYA

CONFERENCE PROGRAMME

EPTA 2023

THEME
GENERATIVE AI

DATE AND PLACE
October 9th, 2023
Parliament of Catalonia

EPTA
European Parliamentary Technology Assessment

cap cit Consell Assessor del Parlament sobre Ciència i Tecnologia

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GENERATIVE ARTIFICIAL INTELLIGENCE. OPPORTUNITIES, RISKS AND POLICY CHALLENGES

A TIME FOR TECHNOLOGY ASSESSMENT TO PARLIAMENTS

Parliament of Catalonia, Barcelona 2023

Monday, 9th of October

Conference topic description

Large generative artificial intelligence (AI) models, such as ChatGPT, have become extremely popular in just a few months making it the fastest growing online application in history. As such, they emerge as a transformative force with profound implications on democracies and civil society. Is generative AI a promise or a peril for democracies, or even for human existence?

The annual EPTA conference will explore the social and legal challenges that generative AI poses for policymakers, civil society and regulators.

Is it necessary to establish regulatory frameworks to address generative AI's social and democratic challenges? Or would general AI regulation suffice to address the latter? Which characteristics of generative AI can be considered when evaluating the convenience of establishing specific policy and regulatory frameworks for it? Which are the potential benefits, challenges and ethical considerations associated to the application of generative AI in key areas such as health or education? Is generative AI designed to disempower and displace workers? Can we even foresee the impact that generative AI will have on the job market?

To disentangle these questions the annual EPTA conference will highlight the following three focal points:

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1. Generative artificial intelligence and democracy

While generative AI may potentially be understood as a tool to enhance democratic governance, it can critically damage the latter.

A deep concern in terms of democracy is related to the risks of misinformation, opacity or fake news, or even the question on how to deal with the fact that technology companies have the power to establish a public narrative, facing the risk that independent critical thinking will be abandoned in order to obtain a fast answer from AI systems. Moreover, since most of the population does not have deep knowledge of generative AI, it is worth asking which kind of mandate can be given to legislators and policymakers. Within parliaments, the use of generative AI in their day-to-day work could be a useful tool, but representatives, too, are likely to see their relationships with their electorate compromised by generative AI.

2. Policy considerations on the integration of generative artificial intelligence in specific sectors

In this session policymakers, researchers and stakeholders will address the challenges and opportunities presented by generative AI in specific sectors, such as health or education, and will identify best practices for the responsible integration of generative AI in these areas.

In the health sector, generative AI is envisioned to aid in diagnosis, clinical advice and drug and vaccine discovery, as well as fostering personalised medicine. Thus, AI is being used to provide better diagnoses, and generative AI could substitute certain clinical actions to save time to medical practitioners with the aim of improving the medical service.

However, the use of AI in medicine also has some risks and ethical concerns. The risk of generating biased AI outputs (as the data source is itself biased in terms of ethnicity, sex or other factors) or the lack of clinical safety considerations may require a regulatory framework. Or could it even be that generative AI substitutes medical effort on diagnosis for more automatised responses?

Similarly, in terms of education, generative AI can transform learning experiences and assessment methods and can generate content adapted to individual student needs. OpenAI's ChatGPT has accelerated the creation of other tools that can produce high quality language texts, images or computer codes with remarkable speed. However, issues concerning intellectual property, data security or even the impact on human creativity and critical thinking might be part of the concerns and future implications of generative AI for knowledge, learning and research, in particular at a very early stage of humans' educational process.

3. Generative artificial intelligence and work

One of the issues widely discussed among researchers is whether generative AI will create mass unemployment by displacing most workers and, furthermore, which will be the effects in terms of social inequality. Can we foresee a huge substitution of qualified workers for AI algorithms? Can we expect an equivalent creation of new jobs? Generative AI will most likely change the nature of our work and the way we work. Which tools do we have to address this question?

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CONFERENCE'S PROGRAMME

8.30 am *Arrival of the participants*

9.15 am *Welcome speeches and thematic introduction*

9.30 am *Keynote speaker*

GARY MARCUS, Scientist, Psychologist and Professor at NYU

Gary Marcus, scientist, bestselling author, entrepreneur, and AI contrarian, was CEO and Founder of the machine learning startup Geometric Intelligence, recently acquired by Uber.

As a Professor of Psychology and Neural Science at NYU, he has published extensively in fields ranging from human and animal behaviour to neuroscience, genetics, and artificial intelligence, often in leading journals such as Science and Nature.

As a writer, he contributes frequently to The New Yorker and The New York Times, and is the author of four books, including The Algebraic Mind, Kluge: The Haphazard Evolution of the Human Mind, and The New York Times Bestseller, Guitar Zero, and also editor of the recent book, The Future of the Brain: Essays By The World's Leading Neuroscientists, featuring the 2014 Nobel Laureates May-Britt and Edvard Moser. His most recent book is Rebooting AI.
In November 2012, he invented the now-ubiquitous trolley problems for driverless cars (borrowed, mostly recently, by Barack Obama).

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10.15 am Session 1: Generative Artificial Intelligence and democracy

Chair : Wolfgang Hiller, European Parliament (STOA)

Wolfgang Hiller is Director in the European Parliament's Research Service responsible for Impact Assessment and Foresight.

Having graduated from Vienna University of Economics, he worked inter alia as speechwriter and specialist in the Economic Coordination Department at the Federal Chancellery in Austria before joining the European Parliament in 1992.

Prior to his current function on 2016, he held various positions within Parliament's services and the European Commission, including as Head of the Parliament's office in Vienna, the Secretariat for the Conference of Presidents and as a member of the Secretary-General's private office in charge of inter-institutional relations and relations with national parliaments.

The services he oversees aim to enhance the European Parliament's capacity to conduct scrutiny and oversight of the executive, particularly through ex-ante and ex-post evaluation of EU legislation, both before and after it is adopted by the Union's institutions. This work is designed to support parliamentary committees in the successive stages of the policy. This responsibility also includes the administrative support of the European Parliament's 27-Member Panel for the Future of Science and Technology (STOA), which provides scientific advice to the Members and the parliamentary committees. It also involves coordinating the institutions' foresight activities and fostering collaboration with other institutions in this field.

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KARINA GIBERT, Director of Intelligent Data Science and Artificial Intelligence and Universitat Politècnica de Catalunya Full Professor

Karina is a Full Professor at the Unvierstitat Politècnica de Catalunya – Barcelona Tech (UPC). Bachelor and PhD in Informatics Engineering, with specialities in Computational Statistics and Artificial Intelligence. Postgraduate in Higher Education Teaching (UPC, 1996).

Director and cofounder of the research center Intelligent Data Science and Artificial Intelligence (IDEAI, en- 2018), former secretary of IDEAI (2017-2021). Vicedean for Equity and Ethics of the Official Professional College of Informatics Engineering of Catalonia (COEINF, June 2020-).

Expert ant co-writer of the Catalan Strategy for AI of the Catalan government, Catalonia.ai (from Oct 2018, Generalitat de Catalunya, enacting from Feb 2018, 28th) she participates in its current deployment.

Her main research interests are to extract strategic knowledge from data and intelligent systems from an ethics and explainable perspective. Very active in bridging the gender gap in the STEAM sector, she founded up to 5 gender working groups. WiDS (Stanford) ambassador for Barcelona from 2021. Editor of JRC journal Environmental Modelling and Software, Elsevier, (Jan 2018-).

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JÉRÔME DUBERRY, Managing Director of the Tech Hub and Senior Research Fellow at the Albert Hirschman Center on Democracy

Dr. Jérôme Duberry is Managing Director of the Tech Hub, Academic Advisor of the Executive Programme in Diplomacy, Negotiation and Policy-Making, and Senior Research Fellow at the Albert Hirschman Center on Democracy (AHCD) and at the Centre for International Environmental Studies (CIES).

Since 2022, Jérôme co-leads a scientific communication project on storytelling, youth, and artificial intelligence funded by the Swiss National Science Foundation (SNSF). Author of “Artificial Intelligence and Democracy: Risks and Promises of AI-Mediated Citizen-Government Relations”.

A member of the Riksdag (Swedish Parliament) ***(TBC)***

12pm *Lunch*

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1.15 pm Session 2: Generative Artificial Intelligence and policy

AI and Health

Chair : Nicklas Bang Bådum, The Danish Board of Technology (DBT)

PAULA PETRONE, ISGlobal Asssociate Research Professor

Associate Research Professor Paula Petrone leads the Biomedical Data Science Team at ISGlobal, specializing in diagnosing chronic and infectious diseases using computer vision and advanced machine learning techniques.

She graduated with a degree in Physics from Instituto Balseiro and earned her Ph.D. in Biophysics from Stanford University. With an entrepreneurial spirit, she founded the startup Phenobyte Life Sciences and has over a decade of experience as a data scientist in the life science and digital health sectors.

Currently, she works as a consultant, mentor, and activist, focusing on ethics, artificial intelligence, and diversity in STEM careers. Annually, she organizes the Women in Data Science Biomedicine Barcelona event.

JOSÉ IBEAS, M.D. Ph.D. Master's Degree in Evidence-based Medicine and Director of Health AI Catalonia Government's programme

Director of the Clinical, Interventional and Computational Nephrology Group (CICN) of the Research and Innovation Institute of the Parc Taulí University Hospital, Sabadell (Barcelona) and Member the of the Clinical Research Ethics Committee.

Co-Director of the Mixed Unit between the CICN and the School of Engineering of the Autonomous University of Barcelona. Co-Director of the Master in Artificial Intelligence and Big Data in Health of Parc Taulí University Hospital & School of Engineering of the Autonomous University of Barcelona. Coordinator-Elect of the Artificial Intelligence working group of the Spanish Society of Nephrology.

Coordinator of the Vascular Access Program of the Parc Taulí University Hospital. President of the Spanish Multidisciplinary Group on Vascular Access (GEMAV). Past-President of the Vascular Access Society (VAS). Council of the Interventional Nephrology working group of the Spanish Society of Nephrology.

Chair of the Clinical Guidelines on Vascular Access of the GEMAV, council of the European Vascular Access Guidelines of the European Renal Association and member of the Clinical Practice Guide on Chronic Renal Disease Group of the Spanish National Health System. He has been a member of the council of the International Committee of the American Society of Diagnostic and Interventional Nephrology.

AI and Education

Chair : Steffen Albercht, Office of Technology Assessment at the German Bundestag (TAB)

CARLES SIERRA, Director of IIIA of the Spanish National Research Council

Carles Sierra is Research Professor and the Director of the Artificial Intelligence Research Institute (IIIA) of the Spanish National Research Council (CSIC) located in the area of Barcelona.

He is an Adjunct Professor of the Western Sydney University. Also, proud recipient of the ACM/SIGAI Autonomous Agents Research Award 2019. He has participated in more than forty research projects funded by the European Union and different governments and has published more than three hundred articles in scientific journals and conferences.

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ENKELEJDA KASNECI, Liesel Beckmann Distinguished Professor for Human-Centered Technologies for Learning at the Technical University of Munich

Prof. Dra. Enkelejda Kasneci is a Distinguished Professor ("Liesel Beckmann Distinguished Professorship") for Human-Centered Technologies for Learning at the School of Social Sciences& Technology and Core Member of the Munich Data Science Institute. From December 2019 until July 2022, she was Professor for Media Informatics and Human-Computer Interaction at the Department of Computer Science at the University of Tübingen and served to this department as the Dean of Studies. In 2013, she received her PhD in Computer Science from the University of Tübingen. For her PhD research, she was awarded the Research Prize of the Federation Südwestmetall in 2014.

Her research evolves around Human-Centered Technologies and AI systems that sense and infer the user's cognitive state, the level of task-related expertise, actions, and intentions based on multimodal data and provide information for media and assistive technologies in many activities of everyday life, and especially in the context of learning. She is member of the Cyber Valley research alliance and of the DFG Excellence Cluster Machine Learning in the Sciences. She is also actively engaged to support young women in STEM and particularly in Computer Science.

3.30 pm *Coffee break*

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4 pm Session 3: Generative Artificial Intelligence and work

Chair: Ferran Domínguez García, Parliament of Catalonia's Lawyer

VIRGINIA DIGNUM, Professor in Responsible Artificial Intelligence at Umeå University, and scientific Director of WASP-HS in Sweden

Virginia Dignum is scientific Director of WASP-HS, the largest Swedish national research program on fundamental multidisciplinary research on the societal and human impact of AI.

She is a member of the Royal Swedish Academy of Engineering Sciences (IVA), and a Fellow of the European Artificial Intelligence Association (EURAI).

She is also member of the Global Partnership on AI (GPAI), the World Economic Forum's Global Artificial Intelligence Council, the UNESCO expert group on the implementation of AI recommendations, the Executive Committee of the IEEE Initiative on Ethically Aligned Design, and of ALLAI, the Dutch AI Alliance. She was a member of EU's High Level Expert Group on Artificial Intelligence and leader of UNICEF's guidance for AI and children. She is author of "Responsible Artificial Intelligence: developing and using AI in a responsible way".

5.30 pm *Closing session*

6 pm *Farewell refreshments*

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