

AI:
Artificial Intelligence
Exhibition at the CCCB
18.10.23—17.03.24



PRESS CONFERENCE

Tuesday, 17 October at 11:00 · Foyer of the CCCB
Streaming on the [CCCB's YouTube channel](#)

Never before has a technology grown as fast and made its way so directly into our lives as artificial intelligence is doing. The exhibition that the CCCB is devoting to it, from 18 October 2023 to 17 March 2024, explores the history, functioning, creative possibilities, and ethical and legislative challenges of this revolutionary technology.

Artificial Intelligence is coproduced by the [Centre de Cultura Contemporània de Barcelona](#) and the [Barcelona Supercomputing Center-Centro Nacional de Supercomputación \(BSC-CNS\)](#), based on the original touring exhibition curated and organized by the [Barbican Centre in London](#) (2019). The exhibition at the CCCB is curated by [Lluís Nacenta](#), a researcher at the overlap of music, art, technology and science, with the scientific advice of [Jordi Torres](#), a researcher at the BSC.

In the current context of intense public discussion and collective dependence on AI, the exhibition offers us a clear and comprehensible approach to artificial intelligence and the debate about its development and implementation in the coming years.

Its main themes are the role of **AI in everyday life**, the huge **opportunities it offers scientific and biomedical research**, the **role of supercomputing as a major driving force**, the present **legislative situation**, the **risks of misinformation** posed by its widespread use, the **racial and gender biases** it can generate, and the role of **AI in artistic and human creativity**.

These themes are explored in a layout that includes key works, a timeline with the milestones in the development of this technology, the testimonies of experts, and more than 20 installations (five created especially for this version of the exhibition) that offer us the chance, among other things, to smell extinct flowers or put a voice to a musical composition created using AI. Taking part is a whole network of pioneering and upcoming artists such as **Universal Everything**, **Robert del Naja (Massive Attack)**, **Anna Ridler**, **Memo Akten**, **Mario Klingemann**, **Justine Emard**, **Steve Goodman (Kode 9)**, **Eduard Escoffet** and **Maria Arnal**, as well as leading national and international research and innovation centres such as the **BSC-NCS**, the **Music Technology Group at the UPF**, the **CVC** and the **MIT**.

The exhibition expands into a series of activities that explore the challenges and opportunities of artificial intelligence and contribute to debate, like Algorithmic Societies, a seminar that will bring together specialists in November to reflect on the ethical and social challenges raised by AI.

The exhibition additionally coincides with the arrival at the BSC of the MareNostrum 5, one of Europe's most powerful supercomputers that expands and speeds up the capacity to conduct research using artificial intelligence, making way for new scientific advances that help to address global challenges such as climate change and to further precision medicine. The presentation of MareNostrum 5 is planned for this autumn.

SECTIONS OF THE EXHIBITION

1. A World of Data

AI sees the world as a data set. Without big data there is no AI. This makes it extraordinarily sensitive to the way data is collected and analysed.

Digital devices (mobile phones, computers, sensors, etc.) play a major role in collecting the data on which AI depends, and we all contribute on a daily basis, often without realizing. The criteria and biases of the functioning of digital media and the way we use it are at the root of the criteria and biases manifested by AI.

Furthermore, these immense data banks, impossible for the human brain to analyse but not AI systems, are a rich source of potential scientific discoveries and offer a new vision of the world.

This first section presents an interactive installation, *Future You*, by the multimedia art and design collective **Universal Everything**, in which a large and ever-changing abstract figure reproduces the visitor's movements; *RAY*, the facial recognition interactive by artist **Weidi Zhang**; *AI, Ain't I a Woman?*, a work that criticizes the racial bias of artificial intelligence by artist and activist **Joy Buolamwini**, and the sound installation *Eco i L'Oracle* by **Eduard Escoffet** in collaboration with scientists at the **BSC**.

2. Machines That Think

Is AI really intelligent? We can at least say that it learns, because it modifies its functioning based on the experience acquired, and that it thinks, because it processes information and acts accordingly.

This section explores the idea of machine thinking and how physical form can be given to artificial intelligence. From Babbage, Lovelace and Turing to the present day, we humans have designed machines to complement our brain that have now achieved a very high degree of self-sufficiency.

Surprisingly, the invention of an artificial being that thinks offers us a new look at what it is to think and, specifically, what it is to perceive, order and understand.

The section features a comprehensive interactive timeline that covers the entire history of AI; the iconic work *Myriad (Tulips)* by artist and researcher **Anna Ridler** and the interactive installation *Circuit Training*, with which artist **Mario Klingemann** explores how machines learn and interpret the world around them and we in turn learn the how best work within their limitations.

3. The Dream of AI

The human ambition to artificially create an intelligent, autonomous organism is not new. The emergence of AI picks up an age-old human desire: fascination and terror at creating or conjuring up a new, alien, intelligent being.

This section describes some of the roots of AI we can decipher in Shinto, Judaism, alchemy and Gothic literature, among others, through the presentation of the numeral systems of different cultures, representations of the Golem, one of the best-known characters in Jewish mythology, and the combinatorial art of **Ramon Llull**.

4. Endless Transformation

This section looks at the fresh perspectives that AI offers to contemporary science and culture. It presents some of the latest scientific advances, views of a social and legal articulation of AI and some artistic productions made using this technology. We specifically examine the present-day situation and future perspectives of the impact of AI on cinema, literature and music.

In this section we see how artist **Robert del Naja (Massive Attack)** has turned one of his most emblematic albums, *Mezzanine*, into genetic material so that it lasts forever; we get to smell the fragrance of a plant that went extinct in Hawaii due to livestock farming, thanks to the project *Resurrecting the Sublime*, by artists **Christina Agapakis, Alexandra Daisy Ginsberg** and **Sissel Tolaas** in collaboration with the biotechnology company **Ginkgo Bioworks**; plus the selection of films made using AI presented at the +RAIN Film Fest, and the interactive installation *Maria Choir* by **Maria Arnal**, in collaboration with the **BSC**, which invites visitors to sing, some of the recorded material of which will be included on the Catalan composer's next disc.

CURATORS OF THE EXHIBITION

AT THE CCCB

Lluís Nacenta

Lluís Nacenta is a curator, writer, musician and researcher in the confluence of music, art, technology and science. He holds a degree in mathematics, a higher degree in piano, a master's degree in comparative studies in literature, art and thought and a doctorate in humanities, with a thesis on musical repetition. He has been Head of Masters and Postgraduates at Eina, University Centre of Design and Art of Barcelona, from 2015 to 2017, and Director of Hangar, Centre for Production and Research in Visual Arts from 2018 to 2021. He is local curator of the exhibition "Artificial Intelligence" at the CCCB.

Jordi Torres

Professor of Computer Architecture at the Technical University of Catalonia (UPC) has been engaged in teaching, management, technology transfer, and research in his long academic career. He is author and co-author of more than 200 research publications and books on high performance computing (HPC) and artificial intelligence (AI). He presently teaches in the Artificial Intelligence degree and masters courses at the UPC. In 2005 he joined the Barcelona Supercomputing Center (BSC) as part of the founding team and became research manager in the Computer Science Department. His experience and teaching abilities have also led him to occupy the position of expert adviser in HPC and IA to the management at BSC with the aim of strengthening communication about and popularization of the BSC's research and innovation projects. He regularly appears in a range of mass media outlets, speaking about the social impact of HPC and AI. He is scientific adviser to the "Artificial Intelligence" exhibition at the CCCB and has recently published the book *La intel·ligència artificial explicada als humans* ("Artificial Intelligence Explained to Humans", Plataforma Editorial).

ORIGINAL EXHIBITION AT THE BARBICAN CENTRE

Dr Suzanne Livingston

Dr Suzanne Livingston has spent her career researching and questioning the entwined relationship between humans, culture and technology and the philosophical consequences emerging from that. Taking a multidisciplinary approach Suzanne has worked across sectors in technology, arts, museums, education and business markets. As Global Principal at Wolff Olins, Suzanne develops strategy and exhibitions internationally with museum organisations such as The V&A, Whitney, ICA Boston, Qatar Museums and Southbank Centre and also with technology businesses including Sony Worldwide, Playstation and Ericsson. Suzanne received her PhD in Philosophy from Warwick University and is a founding member of the influential Cybernetic Culture Research Unit (CCRU). She continues to write collaboratively on technology, belief systems, innovation and evolution.

Maholo Uchida

Maholo Uchida's curatorial research focuses on the relationships between art and science. As senior curator at Miraikan (National Museum of Emerging Science and Technology), Tokyo, Maholo has developed exhibitions including TIME! TIME! TIME! (2003), a series of collaborations between artists and scientists exploring our relationship to time, as well as Love Stories- why you are not alone (2005), an investigation into the history of human love. Throughout her career, Maholo has commissioned internationally acclaimed artists including Björk, Ingo Günther and Jeff Mills. She was also a member of the jury for the Prix Ars Electronica in 2013 and has received Masters degrees in Media and Governance from Keio University in Tokyo, and Scenography from Zurich University of the Arts.

Luke Kemp

Acting Co-Head of Barbican Immersive

<https://www.barbican.org.uk/hire/barbican-immersive-exhibitions>

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ABOUT THE BARBICAN

The Barbican is a catalyst for creativity, sparking possibilities for artists, audiences, and communities. We showcase the most exciting art from around the world, pushing traditional artistic boundaries to entertain and inspire millions of people, create connections, provoke debate, and reflect the world we live in. We are an international arts and events centre rooted firmly in our own neighbourhood, collaborating with local communities and putting the City of London on the map as a destination for everybody. Central to our purpose is supporting emerging talent and shaping opportunities that will accelerate the next generation of creatives.

As a not-for-profit, we rely on the generosity of individuals and organisations, including our principal funder the City of London Corporation. Opened in 1982, the Barbican is a unique and audacious building, recognised globally as an architectural icon. As well as our theatres, galleries, concert halls and cinemas, we have a large conservatory with over 1,500 species of plants and trees, a library, conference facilities, public and community spaces, restaurants, bars, and a picturesque lakeside oasis. We are the home of the London Symphony Orchestra, and a London base of the Royal Shakespeare Company. We regularly co-commission, produce and showcase the work of our other partners and associates: the Academy of Ancient Music, the BBC Symphony Orchestra, Boy Blue, Britten Sinfonia, Cheek by Jowl, Drum Works, the Los Angeles Philharmonic, and We Are Parable.

GENERAL INFORMATION

“AI. ARTIFICIAL INTELLIGENCE”

Dates

From 18 October 2023 to 17 March 2024

Open Tuesday to Sunday and on public holidays from 11:00 to 20:00

Closed on Mondays except public holidays

Venue

Gallery 2 of the CCCB

Prices

6 € / 4 € concessions

Sundays between 15:00 and 20:00, free of charge subject to prior reservation

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