

ORA collection on AI & Machine Learning launch event

2024 March 19th 10:00-11:30

Alessandra Vetrugno
Lead Librarian for Physical and Applied Sciences

Agenda

Introduction and welcome

Lightning talks

- Transfer learning for heterocycle synthesis prediction
 - Ewa Wieczorek, DPhil student in the Department of Chemistry
- Machine learning-based potentials for modelling chemical reactions in the gas phase and solution
 - Veronika Juraskova, Postdoctoral researcher in the Department of Chemistry
- Learning to Adapt: Rational Personalization of Cancer Treatment Schedules using Deep Reinforcement Learning
 - Kit Gallagher, DPhil student in the Mathematical Institute
- Simulation and analysis of highly polygenic traits
 - Daiki Tagami, DPhil student in the Department of Statistics
- AI & Elections in Africa
 - Michael Collyer, DPhil student at the Oxford Internet Institute
- International governance of civilian AI via jurisdictional certification
 - Benjamin Harack, DPhil student in the Department of Politics and International Relations and DPhil Affiliate at the Oxford Martin AI Governance Initiative

Networking & Refreshments

Posters

- Using AI-generated speech to inform historical sound change (with specific reference to Old English vowel breaking)
 - Jonathan Wei, DPhil student in the Department of Linguistics, Philology and Phonetics
- A Reinforcement Learning approach to Hamiltonian Eigenvalue Solving
 - Oliver Chapman, DPhil student in the Department of Chemistry
- Trustworthiness Auditing for Artificial Intelligence Systems
 - Kaivalya Rawal, Postdoctoral researcher at the Oxford Internet Institute

Oxford University Research Archive (ORA)

An ORA AI Collection

ORA service

Oxford University Research Archive (ORA) - Institutional Repository for the University, collecting, preserving and disseminating Oxford's research: including journal articles, conference papers, book sections, reports, working papers, posters, research theses, and research data.

Currently ~289k records, and ~117 full text available.

<https://ora.ox.ac.uk/>

The screenshot shows the ORA website interface. At the top left are the ORA logo and the University of Oxford crest. Navigation links for 'COLLECTIONS', 'ABOUT', 'DEPOSIT', and 'HELP' are in the top right. A search bar is prominently displayed with the text 'EXPLORE THE UNIVERSITY OF OXFORD'S WORLD-CLASS RESEARCH' above it. Below the search bar are buttons for 'COVID-19 Collection', 'Climate Collection', 'AI Collection', and 'More...'. The main content area is divided into three sections: 'Deposit', 'Latest additions', and 'In numbers'. The 'Deposit' section explains that members of the University of Oxford can deposit a wide range of research to ORA, including articles, conference papers, theses, and data, with a 'DEPOSIT' button. The 'Latest additions' section lists recent research items, such as 'Phosphine oxide modulator-ameliorated hole injection for blue perovskite light-emitting diodes' and 'Revised upper limits for abundances of NH3, HCN and HC3N in the Martian atmosphere'. The 'In numbers' section features a pie chart showing that 78.4% of the content consists of journal articles, with other categories including conference papers, theses, book sections, working papers, and other. The footer contains copyright information for Bodleian Libraries 2024 and links to various policies and contact information.

ORA AI Collection

- Currently 6,345 records of content
 - 4,566 with full text available to download
- Bringing together research on AI and Machine Learning from within ORA across the divisions into a single space
- Providing barrier free global access without paywall, login, or subscription
- Enabling research to be available to policy and practice makers
- Since October 2023 >80k views, ~50k downloads

<https://ora.ox.ac.uk/collections/ai>

The screenshot shows the ORA AI Collection website. At the top, there are logos for ORA (Oxford University Research Archive) and the University of Oxford. Navigation links include NEW SEARCH, COLLECTIONS, ABOUT, DEPOSIT, and HELP. A search bar is prominently displayed with the text "Search the ORA AI Collection" and a dropdown menu set to "All Fields". Below the search bar, there is a descriptive paragraph about Artificial Intelligence and Machine Learning research at the University of Oxford. This is followed by a section titled "Featured Work" which displays three journal articles with their titles and authors. At the bottom, there is a section titled "Latest research from across the University" which is divided into four columns representing different academic disciplines: Medical Sciences, Maths, Physical & Life Sciences, Social Sciences, and Humanities. Each column lists recent research findings.

ORA
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NEW SEARCH COLLECTIONS ABOUT DEPOSIT HELP

ORA AI COLLECTION

Search the ORA AI Collection / All Fields

Artificial Intelligence and Machine Learning have existed as areas of research for many years but recently these areas have come to the forefront in research in many different disciplines. There are many departments and groups across the University of Oxford that are using and developing AI tools in their research. Many of these research projects have practical applications in medicine, the environment, business and many other areas of society.

The Artificial Intelligence and Machine Learning collection has gathered research on many journal articles, conference papers, working papers, preprints, and more - produced by the members of the University of Oxford, held with full text by ORA, as well as providing links to related AI research information and activities at the University at other locations.* We welcome your thoughts, comments and suggested additions.

If you are a member of the University of Oxford and can't see your Artificial Intelligence related paper here, then [deposit your accepted manuscript to ORA](#).

Featured Work

Journal article
Application of artificial intelligence to the management of urological cancer
Abbod, MF, Catto, JWF, Linkens, DA, et al.

Featured Work

Journal article
Artificial intelligence and the ongoing need for empathy, compassion and trust in healthcare
Kerasidou, A

Featured Work

Journal article
Trust me, I'm a chatbot: How artificial intelligence in health care fails the Turing test
Powell, J

Latest research from across the University

Medical Sciences

- Not wacky vs. definitely wacky: a study of scalar adverbs in pretrained language models
- Neural mechanisms of state-dependent sensory processing
- Variability between human experts and artificial intelligence in identification of anatomical str...

Maths, Physical & Life Sciences

- Subtle variation in sepsis-III definitions markedly influences predictive performance within and ...
- HateCheck: functional tests for hate speech detection models
- Temporal adaptation of BERT and performance on downstream document classification: insights from

Social Sciences

- HateCheck: functional tests for hate speech detection models
- Temporal adaptation of BERT and performance on downstream document classification: insights from ...
- Two contrasting data annotation paradigms for subjective NLP tasks

Humanities

- Creativity, artificial intelligence, and God
- On the desire to make a difference
- A personalized patient preference predictor for substituted judgments in healthcare: technically ...
- Collective intelligence as infrastructure for reducing broad global catastrophic

Key contact and help

ORA Helpdesk

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Symplectic helpdesk

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Open Access helpdesk

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