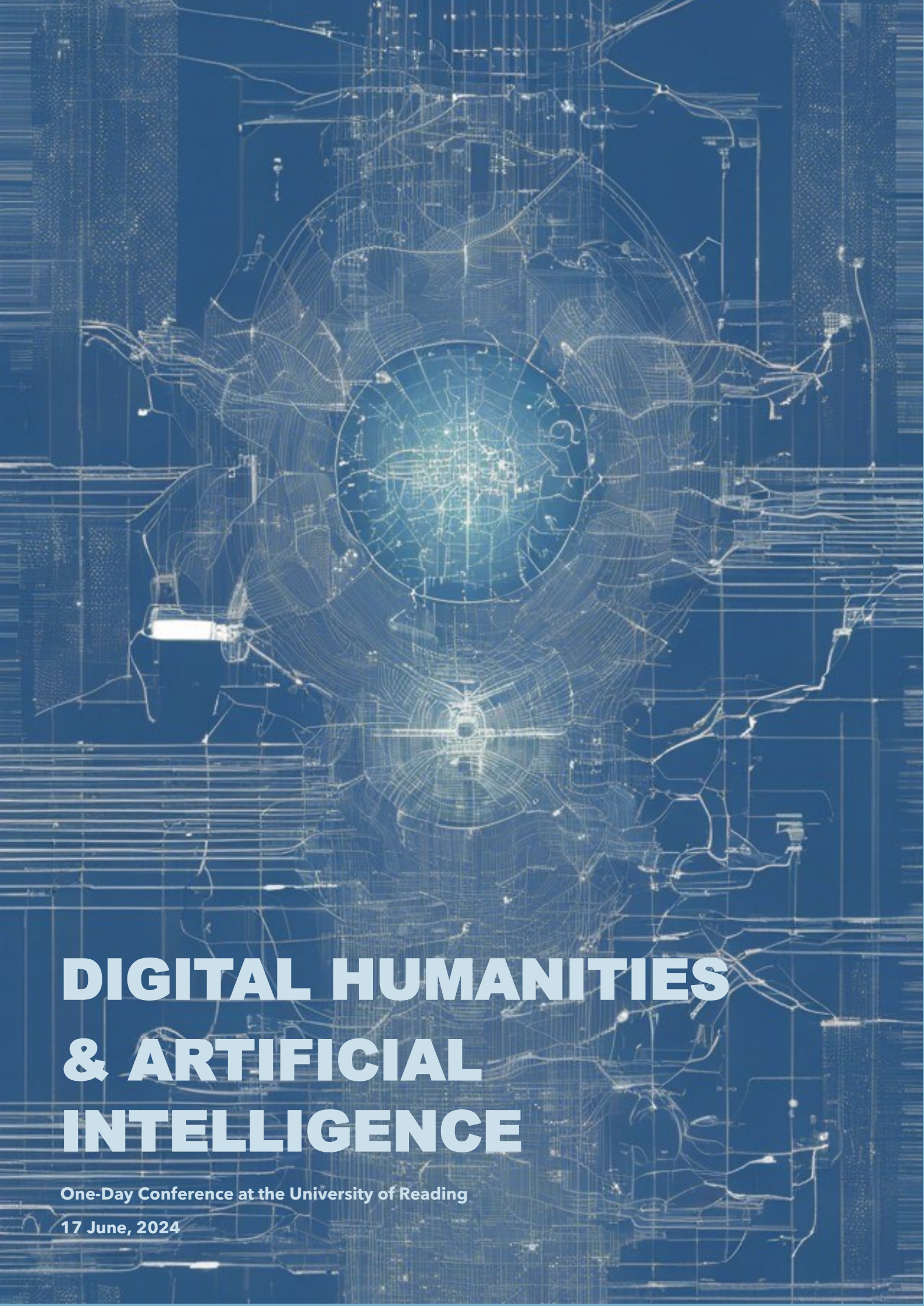

DIGITAL HUMANITIES & ARTIFICIAL INTELLIGENCE

One-Day Conference at the University of Reading

17 June, 2024

Front cover image generated using https://stablediffusionweb.com/app/image-generator with the prompt 'Digital humanities and AI, blue'

WELCOME

Contents

It is with immense pleasure and pride that we extend to you all a warm welcome to the University of Reading's Digital Humanities Community of Practice Inaugural Conference.

Established in September 2022, the DH CoP stands as a beacon of innovation within our university community, driving research excellence, fostering ambition, and nurturing a culture of experimentation and collaboration among all research themes. Through a diverse range of activities and initiatives, the CoP aims to increase awareness and understanding of DH within the University of Reading, while enhancing its national and international profile in the field. The CoP serves as a platform for open dialogue on DH issues, facilitates the exchange of expertise, and provides essential support for both ongoing and prospective projects. Through networking events, methodological workshops, grant development support, and training sessions (in collaboration with the DH Hub) as well as fostering internal research synergies and cultivating external partnerships, the DH CoP serves as a cornerstone for the advancement of digital scholarship and collaborative research at Reading.

As we convene for this landmark event, we celebrate the culmination of our collective efforts in shaping a vibrant and dynamic DH landscape. The conference theme aligns with

the DH CoP's mission and invites us to explore the rich intersections between Digital Humanities and Artificial Intelligence. Reflecting on Reading's research strengths in Cultural Heritage, Ethics and Synthetic Media, our discussions promise to illuminate pathways, challenge conventional boundaries, and inspire innovative research.

None of this would have been possible without the invaluable contributions of numerous individuals and we would like to acknowledge their contributions. First, we would like to thank all the speakers for their excellent submissions as well as our esteemed keynote speaker, Dr Barbara McGillivray King's College London), for sharing her insights and expertise. We also express our most sincere appreciation to our conference organising committee: Dr Dawn Kanter (DH Officer), Dr Dominic Lees (Associate Professor of Film Making), Dr Jumbly Grindrod (Lecturer in Philosophy), Professor James Ferryman (Professor of Computational Vision), Dr Rachel Lewis (Research Development Manager), and Dr Bohni Bhattacharya (Senior Research Development Manager). Special thanks are due to Laura Robb and Venue Reading for their logistical support and venue arrangements.

Once again, welcome to the University of Reading's Digital Humanities Community of Practice Inaugural Conference. May your participation be enriching, enlightening and inspiring.

Warm Regards,

Professor Roberta Gilchrist,
Research Dean for Heritage and Creativity

Dr Mara Oliva,
Digital Humanities Champion and DH CoP Lead

ORGANISING COMMITTEE

Dr Dawn Kanter

Digital Humanities Officer

Dawn is the Digital Humanities Officer at the University of Reading, in which role she co-ordinates the activities of the Digital Humanities Hub. Dawn joined the University after completing her PhD in Art History and Digital Humanities. Her doctoral research, which takes a digital approach to portraiture and the portrait sitting, draws on her earlier professional experience. Dawn has previously worked in digital roles at museums, including Imperial War Museums and the National Portrait Gallery.

Dr Dominic Lees

Associate Professor of Film Making

Dominic's expertise is in Generative AI in the screen industries. He publishes and researches in the fields of deepfakes, voice cloning, and text-to-video, with a particular emphasis on the ethics of creativity using AI technologies. As a public-facing academic expert on AI, he has provided expert interviews to national media (Sky News, BBC Radio) and provide deepfake fact-checking for international news organisations (Reuters, Boom Live India). He is the lead writer on AI for the BFI's Sight & Sound magazine. His major research has been into deepfakes – the digital replacement of actors' faces in film using systems of Artificial

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Intelligence. He was Principal Investigator of the project Virtual Maggie (2019-20), which used a practice research methodology to explore how 'machine learning' could be used to digitally resurrect Margaret Thatcher in a contemporary drama. His work also examines the ethics and legal questions arising from deepfakes, and the impact on the performer in screen production. He is interested in the transformative impact of new technologies on the creative process in mainstream production, and on how deepfakes alter audiences' relationship with screen fictions. He leads the Synthetic Media Research Network (SMRN), which brings together UK and international scholars, industry stakeholders and governmental bodies to consider the future of Generative AI technology.

Dr Jumbly Grindrod

Lecturer in Philosophy

Jumbly's research interests lie in philosophy of language and epistemology. In particular, he is interested in context-sensitivity and the semantics-pragmatics interface, and how this debate can or does inform epistemological debates. More recently, he has also been interested in the extent to which corpus analytics can be used to help answer philosophical questions.

Professor James Ferryman

Professor of Computational Vision

Professor Ferryman's current research is concerned with the automatic visual surveillance of wide area scenes using computational vision. The research has contributed new results in the areas of model-based vision, visual tracking and surveillance, especially using 3D deformable models.

Specific research includes: Model-based methods for people and vehicle surveillance, Appearance-based modelling, Human-Computer Interaction (HCI), Pose and structure recovery, Classification, Path-based tracking of known objects in 3D using single or multiple cameras. Professor Ferryman is particularly keen to see technology transfer and commercial prototypes based on research.

Dr Rachel Lewis

Research Development Manager

Rachel Lewis is a Research Development Manager at the University of Reading, specialising in facilitating research innovation and development alongside Arts and Humanities (A&H) researchers. She empowers researchers to navigate the complexities of funding applications and future research planning. As a core member of the University's

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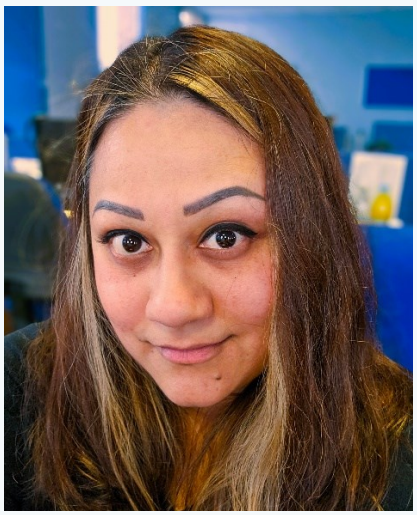
DH Hub team from the start, she orchestrates support for digital-centric A&H research endeavours and has been a driving force in behind-the-scenes changes to DH support at Reading. Leveraging her diverse background in academia, publishing, and at UKRI, Rachel champions interdisciplinary collaborations and spearheads initiatives such as the Environmental Humanities programme. Armed with a PhD in molecular microbiology, she brings a unique perspective to DH, where her passion for maximising potential and enabling innovation thrives.

Dr Bonhi Bhattacharya

Senior Research Development Manager



Bonhi Bhattacharya is a Senior Research Development Manager at the University of Reading, and Head of Team for the science based Research Development Managers. She facilitates the growth and development of research funding portfolios to support academics in their research ambitions, with a focus on strategic planning and larger, complex funding proposals. She has worked for the University in a number of research adjacent roles since completing her PhD in Mathematics here in 2010. She has an undergraduate background in AI, and in her roles as both Turing Liaison for Reading and co-lead for the

AI Community of Practice, is keen to encourage cross-disciplinary applications of AI. Alongside her scientific background, she has strong interest in the humanities, and is currently working on a dissertation on art in the medieval parish church towards an MA in History of Art at Birkbeck, University of London.

PROGRAMME

9.30	Arrival and registration – Meadow Suite (coffee and tea)
10.00	Welcome – Meadow Suite Professor Roberta Gilchrist, Research Dean for Heritage and Creativity, Dr Mara Oliva, Digital Humanities Academic Champion, and Conference Organising Committee
10.20	Keynote Address – Meadow Suite *Coding Culture: A Journey at the Nexus of Artificial Intelligence and Digital Humanities* Dr Barbara McGillivray, King's College London
11.20	Coffee/tea break – Meadow Suite
11.40	Parallel sessions 1
	Session A: Cultural Heritage – Meadow Suite Chair: Dr Mara Oliva, University of Reading *Cataloguing with AI? Towards a New Workflow for Cultural Heritage Accessibility* Dr José Pedro Sousa, Universidade de Lisboa *Artificial Curators – Design Considerations for Interactive Chatbot Experiences in Cultural Heritage Settings* H. Gu, J. Vandommele and J.S. Love, TU Delft and National Library of the Netherlands *AntiquAI: Classifying Portable Antiquities with AI* Dr Mark McKerracher, University of Oxford *Reframing Cultural Heritage Datasets* Erin Canning, University of Oxford
	Session B: Synthetic Media – Blandford Chair: Dominic Lees, University of Reading *'Bringing History to Life': Animating Historical Portraits through AI* Cate Cleo Alexander, University of Toronto *Synthetic Pasts: Digital Memory and Heritage in the Age of Generative AI* Dr Jenny Kidd, Cardiff University and Dr Eva Nieto McAvoy, King's College London *Synthesising the Obraz/ Stanislavsky, Active Analysis and AI-Assisted Image Creation* Dr Jon Weinbren, University of Surrey *Annotations Beyond Words – Placing AV Content in a Narrative Driven Latent Space* Yang Yuchen, Swiss Federal Institute of Technology in Lausanne
13.00	Lunch – Meadow Suite

14.00	Parallel sessions 2
	Session A: Ethics - Meadow Suite Chair: Dr Jumbly Grindrod, University of Reading *Deep Fakes at Face Value: Self-Image and Authority* Dr James Ravi Kirkpatrick, University of Oxford *The Illusion of Knowledge: Interpreting AI Hallucinations in the Study of Humanities and the Black Box of LLMs* Amina El Ganadi, University of Palermo and University of Modena and Reggio Emilia *Disrupting Automatism: Deepfakes, Performativity and Faciality* Andrew Philip, University of Reading *AI Generated Content and Sensitive Historical Circumstances* Ella Wright, University of Birmingham
	Session B: Cultural Heritage – Blandford Chair: Dr Dawn Kanter, University of Reading *Using AI for the Documentation of Intangible Cultural Heritage* Professor Gabriella Giannachi, University of Exeter, Professor Steven Benford, University of Nottingham and Dr Lydia Farina, University of Nottingham *AI and the Visual Page Design: a Study of Dante's Commedia in Print* Professor Guyda Armstrong, University of Manchester and Dr Giles Bergel, University of Oxford *Archaeological Storytelling and Procedural Content Generation in Games* Florence Smith, Queen Mary, University of London *Exploring the Synergy of Artificial Intelligence and Virtual Reality for Heritage: a Systemic Literature Review* Dr Mara Oliva, University of Reading
15.30	Coffee/tea break – Meadow Suite

16.00	Parallel sessions 3
	Session A: DH and AI in the classroom – Meadow Suite Chair: Dr Nicola Wilson, University of Reading *Digital Assemblages with AI for Creative Interpretation of Short Stories* Dr Kieran O'Halloran, King's College London *Best Practices for Using Conversational AI tools in Ancient Language Teaching and Learning* Jackie Baines and Edward Ross, University of Reading *Reimagining the Canterbury Tales for the Classroom: A Student-Led Approach to AI Edition-Making* Dr Sophie Whittle, University of Sheffield
	Session B: Cultural Heritage – Blandford Chair: Dr Mara Oliva, University of Reading *Distribution, Holism, and the Instability of Meaning* Dr Jumbly Grindrod and Dr Nat Hansen, University of Reading *Leveraging Computer Vision and Multimodal Language Models to Understand the Visual Media of the Protestant Reformation* Dr Drew Thomas, University College Dublin *Large Language Model-Based Linguistic Annotators for Research Corpora* Abdulrahman A.A. Alsayed, University of St Andrews
17.30	*DHQ* Special Issue and closing remarks – Meadow Suite
18.00	Drinks reception – Meadow Suite Terrace

KEYNOTE SPEAKER

Coding Culture: A Journey at the Nexus of Artificial Intelligence and Digital Humanities

Dr Barbara McGillivray, King's College London

Abstract

Artificial Intelligence is driving transformative changes across most domains of knowledge. The Digital Humanities are no exception: advanced computational methods are revolutionising conventional research methodologies, enabling analyses of vast datasets, and revealing patterns previously beyond reach. However, the effort to simulate human-like intelligence in machines tends to assume intelligence as a fixed goalpost, neglecting its dynamic and evolving nature. This assumption extends to the temporal depth of the datasets that are crucially used for training these large models and overlooks the nuanced and context-dependent aspects of language that are so central to humanistic enquiry.

Efforts are underway to enhance AI systems' ability to capture historical context and language dynamics. AI models can be trained on historical datasets and can incorporate temporal aspects into their analyses, for instance considering the chronological order of events. This contextual understanding helps AI systems adapt to the dynamic usage of language. For example, researchers can use these methods to quantify semantic changes in words, deepening our understanding of language evolution. Despite these advancements, challenges persist in fully capturing the dynamicity of language, and understanding its relationship with cultural and historical changes.

This presentation focusses on the invaluable contributions of digital humanists to this interdisciplinary landscape, particularly in the context of computational research on semantic change. I will share insights gained from my experience at the intersection of Digital Humanities and Computational Linguistics, specifically focusing on the analysis of historical textual collections. By leveraging this convergence, we can fully embrace the transformative potential of AI while accounting for the dynamic nature of language and its historical context, leading to new interpretations of our cultural heritage.

Bio

Barbara McGillivray is Lecturer in Digital Humanities and Cultural Computation in the Department of Digital Humanities of King's College London and Turing fellow at The Alan Turing Institute. She is Editor in Chief of the Journal of Open Humanities Data and convenor of the MA programme in Digital Humanities at King's, as well as president of the ACL Special Interest Group on language technologies for the socio-economic sciences and humanities and convenor of the Turing special interest group 'Humanities and data science'. Her research focusses on computational methods for the study of language change in both historical languages and contemporary data. She has worked as a language technologist in the Dictionaries division of Oxford University Press and as a data scientist in the Open Research Group of Springer Nature. She has also been a Turing research fellow at the University of Cambridge and at The Alan Turing Institute. Her most recent book is 'Applying Language Technology in Humanities Research. Design, Application, and the Underlying Logic' (co-authored with Gábor Mihály Tóth, Palgrave Macmillan 2020).

DHQ SPECIAL ISSUE

All papers presented at the conference will be considered for *Digital Humanities Quarterly* (*DHQ*) Special Edition.

Timeline

- Please send your manuscript to DH-AI-Conference@reading.ac.uk by **1 October 2024**.
- The Conference Organising Committee and Editorial Team will review all submissions and communicate acceptance, rejection or review by **1 December 2024**.
- The Special Edition will be submitted by **15 January 2025** (*DHQ*'s deadline).

As Dr Mara Oliva is a *DHQ* editor, to avoid any conflict of interest, the journal will conduct an independent anonymous peer-review.

Guidelines

DHQ does not accept special issues with a purely event-based focus.

DHQ accepts submissions for the following categories:

- Articles: Article-length pieces describing original research.
- Case Studies: Detailed analyses of specific projects that contextualize the project within the DH field, and demonstrate its significance for other practitioners.
- Field Reports: Reports on digital humanities-related practice from the perspective of a particular locale.

A submission in any category must meet the following basic standards for DHQ publication:

- It must fall within the content domain of the journal. This includes the various domains of digital humanities, and may include other neighbouring domains as long as they are discussed in relation to some aspect of digital humanities research, practice, or pedagogy.
- The submission must communicate effectively to the broad *DHQ* readership, rather than being narrowly limited to specialists in a particular subdomain. The audience of *DHQ* is of course the digital humanities community, but it also extends more broadly to related domains and to the interested non-specialist: for instance, humanities faculty, digital artists, museum curators, archivists, and the like. *DHQ* articles should be clear without being elementary; they should not rely on insider knowledge, and they should situate their argument within a broader context of research. This may involve glossing terms, providing context, and including explanation of the significance of the research so that readers in other areas of digital humanities can

understand and apply the results in their own research.

- It must have an argument, and it should represent an original contribution to the research and practice of the digital humanities field, or should offer an original analysis, critique, or viewpoint on some aspect thereof. The submission should also engage with relevant strands of research or debate within the digital humanities field.
- It must be well written, and must present its argument clearly and interestingly. (However, we can help the author improve the writing and argumentation, so a lack in this area is not necessarily a disqualification.)
- *DHQ* does not consider submissions that state or support defamatory or racist positions or hate speech.

Submission of a manuscript will be understood as confirmation that it represents unpublished original material and that it is not being considered for publication elsewhere. Publication of related material on a blog, or publication in another language is fine.

Submission length is between 6,000 and 8,000 words per piece.

Formats of Submission and Publication

DHQ is an entirely digital journal, published in XML. We accept submissions in the following formats:

- XML files encoded in the *DHQ* markup language; a schema, authoring template, and encoding documentation are available at https://www.digitalhumanities.org/dhq/submissions/index.html#formats
- XML files encoded in TEI
- RTF, OpenOffice (and its variants), or MS Word

Submissions may also include supplementary files including images, audio, video, and accompanying data sets. In the initial submission, for ease of reviewing, figures should be embedded in the text. For the final version (if the article is accepted), all supplementary materials should be submitted as separate files (rather than being embedded in the submission) and may be in the following formats:

- Image file formats: PNG, JPG, GIF, PDF and SVG
- Audio file formats: MP3
- Video file formats: Please contact the journal for details
- Data sets: plain text, CSV, tab-delimited data, or XML
- Executable code: Please contact the journal for details

To ensure that we can maintain long-term access to the journal's content, materials will be published and stored wherever possible in XML and standards-based multimedia formats.

ABSTRACTS

In order of appearance on the programme

Cataloguing with AI? Towards a New Workflow for Cultural Heritage Accessibility

Dr José Pedro Sousa, Universidade de Lisboa

Manuscript cataloguing has long been a laborious and time-consuming task, driven by the challenges of deciphering handwritten texts from various contexts and time periods. As cataloguers often prioritize identifying and describing collections over delving into specific handwriting styles, many valuable materials have remained briefly described, awaiting the attention of skilled palaeographers. The adoption of AI in Memory Institutions has the potential to revolutionize this process by automatically transcribing handwritten manuscripts, thereby expediting cataloguing efforts. However, this transformation introduces complex considerations, such as the accuracy of transcriptions, the balance between access and precision in catalogue descriptions, and the collaborative involvement of conservators and digitisation specialists. This paper explores the use of AI in the cataloguing of manuscripts, with a focus on enhancing accessibility to cultural heritage hold by library and archive collections. The unique contribution of this study lies in two distinct aspects: 1) the investigation of Handwritten Text Recognition (HTR) potential as a cataloguing tool, beyond its conventional role of transcribing handwritten text, and 2) the implementation of a methodology that incorporates fieldwork and participant observation, drawing on the expertise of library and archive professionals to collaboratively design a cataloguing workflow that caters to diverse requirements. The aim is to bridge the gap between traditional manuscript cataloguing practices and the possibilities offered by AI. By proposing a practical workflow that incorporates accessibility, engagement, and preservation considerations, this study seeks to explore the role of AI in enhancing cataloguing and promoting manuscripts accessibility for researchers and the general public.

Artificial Curators – Design Considerations for Interactive Chatbot Experiences in Cultural Heritage Settings

H. Gu, J. Vandommele and J.S. Love, TU Delft and National Library of the Netherlands

In late 2022 members of the Future Libraries Lab based at TU Delft and the National Library of the Netherlands (KB) began experimenting with possibilities for chat-based interfaces between library visitors and special collections materials. While consulting existing studies of chat interactions in the cultural heritage sector and burgeoning literature on generative

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technologies for human-computer interaction, the group settled on a concept of an 'artificial curator' intended to serve as an open-ended guide to historical texts. A ChatGPT-based prototype called CuratorBot was deployed online and presented in a kiosk within the KB main reading room over the period of March-August 2023, during which time the system collected data for the team to study aspects of the experience such as visitors' perceived values. The team analyzed almost 1,000 questions posed to the CuratorBot alongside a small collection of survey responses, thumbs up/down feedback and anecdotes from discussions during multiple demonstrations of the prototype. Yields from this research-through-design experiment include insights into merits of generative text systems, including a wide sense of amusement or joy for users as well as surprise or gratitude for affordances such as the system's organic multilingual capacity. Observed deficiencies of generative chat interfaces so far focus largely on system hallucinations when probed for information beyond the superficial, and a stronger connection between images and text are greatly to be desired. These and further points are being compiled into a working set of guidelines for crafting and deploying open, chat-based systems in heritage settings.

AntiquAI: Classifying Portable Antiquities with AI

Dr Mark McKerracher, University of Oxford

Metal-detecting is a hugely popular pastime which contributes a wealth of data to British archaeology. Some 20,000 enthusiasts regularly discover coins, dress accessories and other metal artefacts – which would otherwise remain unknown – in ploughed fields across the country. The Portable Antiquities Scheme (PAS), based at the British Museum, is a national programme which encourages detectorists to report these finds. The result is an open access database recording over 1.4 million artefacts (https://finds.org.uk). This dataset is now so vast and multi-faceted, however, that it is impractical for researchers comprehensively to identify complex patterns amid the plethora of data. In addition, the sheer variety of finds is such that data entry is prone to inconsistency or error. To address these issues, the AntiquAI pilot project – a collaboration between the University of Oxford and the British Museum – is deploying computer vision AI to develop an 'expert system' capable of classifying artefacts from photographs. This software will make data entry more efficient and accurate, thus improving the consistency of the data and supporting the development of AI-driven research tools. So far, AntiquAI has demonstrated that PAS photographs are 'readable' to image classification software; we

are now investigating how the system can combine images and metadata for enhanced classification of finds. In this way, AntiquAI will develop a transferable methodology that can be applied in other European nations with comparable datasets, such as the Netherlands and Denmark where schemes similar to the PAS have been set up.

Reframing Cultural Heritage Datasets

Erin Canning, University of Oxford

Concerns about the potential for harm that is introduced by the uncritical use of cultural heritage datasets for artificial intelligence projects are well described in the field of digital humanities. This paper seeks to consider those concerns through a reframing of the collections-as-data paradigm as a way to examine how collecting institutions have constructed concepts of what counts as valid knowledge about cultural heritage objects, instead of being a method for learning about the objects themselves. I argue that datasets created by cultural heritage institutions can be used to expose how these institutions have shaped how objects have come to be understood by their publics, and in doing so reject framings of such datasets as neutral, objective, or raw. This paper will describe work that has taken place as part of the AHRC-funded Collaborative Doctoral Partnership studentship 'Applications of computational approaches in addressing problematic terminology within V&A museum catalogues'. In this project, datafied catalogue records from the Victoria & Albert Museum are used not as a base for computational work to learn about the objects or to support machine learning tools for further cataloguing work, but instead as a dataset to examine for evidences of bias in cataloguing structure and language. Informed by work in critical data/set studies alongside feminist and queer theory, this paper introduces an approach to the use of computational methods that prioritises transparency, fairness, and accountability by critically examining the results of existing data creation practices before risking replicating them in increasingly technological ways.

'Bringing History to Life': Animating Historical Portraits through AI

Cate Cleo Alexander, University of Toronto

It's the hot new trend in the historic photo colourization community: AI generated movement. This presentation examines how these animated historical portraits are reinforcing gendered and racialized tropes, devaluing diversity and accuracy in digitally mediated public history in favor of a simulated intimacy with 'attractive' white bodies. Through tracing

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the history of digital photo colourization, I contextualize how history enthusiasts have adopted AI in their efforts to 'bring history to life'. Recently, creators have started to use AI to automatically add modern hair and makeup to historical figures and to make them move. These uncanny personages tilt their heads, shift their eyes, blink, and smile. This presentation will explore the role of AI in preserving, interpreting, and making accessible cultural heritage through these animated portraits. I argue that these efforts to 'make history feel real' come from a desire to create affect and intimacy with historical figures. Through comparing the outputs of two content creators, Historicly and Royalty Now, I investigate how the shift from manual photo editing to AI is reinforcing gendered and racialized tropes. I use visual content analysis to identify how AI superimposes contemporary ideas about beauty and gender, as the algorithm slims noses and face shapes, enlarges eyes, whitens skin, and prescribes different affective gestures based on gender presentation. Through examining these uncanny portraits and how they have changed over time, I create insights about the black box and its flawed algorithms that are shaping how people relate to historical figures.

Synthetic Pasts: Digital Memory and Heritage in the Age of Generative AI

Dr Jenny Kidd, Cardiff University and Dr Eva Nieto McAvoy, King's College London

This paper explores automated and algorithmic processes designed to change the structure and behaviour of images from the past, in-so-doing, offering them new kinds of 'afterlife'. Specifically, it explores how (images of) our deceased ancestors are remediated and 'resurrected' through generative AI programmes (Deep Nostalgia and HereAfter AI for example). We explore initial findings from the Synthetic Pasts project, a mixed-methods investigation into how the production of such outputs (1) affords new networked, technological, temporal, spatial and affective realities for archival images, and (2) impacts individual, collective, and cultural memory work as a consequence (Kidd and Nieto McAvoy 2023, Nieto McAvoy and Kidd 2024). The project addresses concerns central to Digital Memory and Heritage Studies now, and will be using critical digital methods such as corpus analysis and the walkthrough method. In this paper we interrogate what values and cultural assumptions are embedded in the systems that produce synthetic images of our familial pasts and unpack the myriad ethical challenges they present; for example, in relation to 'deceptive genealogy', the exploitation of datafied bodies, and (often posthumous) consent. Our findings

are significant as they speak to human concerns reaching beyond the digital including how we grieve, how we express and understand identity, how we articulate and commemorate the past, and the impacts of disinformation. The paper sets out a nascent agenda for the study of 'synthetic pasts' in the coming years, exploring what future(s) for image archives our algorithmic present anticipate and pave the way for. With this paper we wish to respond to the conference prompt in Strand 3 to examine the ethical and cultural implications of AI-generated content in the Digital Humanities.

Synthesising the Obraz/ Stanislavsky, Active Analysis and AI-Assisted Image Creation

Dr Jon Weinbren, University of Surrey

Within the heady world of Generative AI, there has been an explosion in Text to Image systems over the past 18 months. These neural networks are able to synthesise coherent images from an almost limitless palette of prompts, including variations in style, content, action and situation. Using billions of marked-up images trawled from the almost limitless media sources the internet offers, the networks have 'learnt' complex associations between word and image, and are able to convincingly 'depict' whatever they are instructed to convey. The mechanics behind these systems involve a process known as 'diffusion', in which the starting point for every image synthesis is random pictorial noise; the system then iteratively refines this noise in cyclical attempts to get closer to the convincing depiction of the original text prompt. It is an improvised near-randomness transformed through the experience of 'training data' into what eventually results in something which resembles the intention of the original 'direction', as expressed by the human-created text prompt. Nearly one hundred years previously, Stanislavsky's final experiments in creating convincing theatrical portrayal involved directing actors to improvise loosely around the situational and thematic essence of a scene of a play, with little reference to the words on the playscript. Anything the actors brought to the 'étude' was fair game, food for thought for a post-improvisational analysis where what had emerged was compared and contrasted to the actual text of the play. The process would then be repeated over the rehearsal period. Gradually and iteratively, the melding of the author's intention, the director's interpretation, and the spontaneous creativity of each actor's response to the circumstances would result in the communal composition which embodied everyone's contribution: a rendered final 'image' with its own sense of 'aliveness' through character, action and situation. Today's generative-AI systems are already spawning deep debates about the nature of creativity and

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art, just as Stanislavsky's ground-breaking approaches to acting and portrayal gave rise to revolutions in theatre, and subsequently cinema. Resonances and differences in both arenas will be discussed, and critically, I will explore how the alleged potential mechanisation of creativity can be called into question by applying elements of Stanislavsky's late legacy to the current debates in AI.

Annotations Beyond Words – Placing AV Content in a Narrative Driven Latent Space

Yang Yuchen, Swiss Federal Institute of Technology in Lausanne

As our world undergoes rapid transformations driven by advancements in media and technology, the landscape of cultural heritage preservation is expanding beyond traditional artefacts (Caswell et al., 2017). A notable evolution is the increasing significance of videos, ranging from everyday social media clips to comprehensive recordings capturing contemporary culture's essence (Pietrobruno, 2013). Recent annotation methods have seen a shift towards more intricate and automated processes and incorporate elements such as colour, entities, movement, and visual composition (Evi-Colombo et al., 2020) beyond traditional metadata keywords. Simultaneously, the interface for accessing video archives has undergone a profound transformation (Piet, 2023; Kenderdine et al., 2021). One notable example is the clustering of items based on dimension reduction, offering a unique perspective on certain aspects or features within the video content like visual similarity or colour (Masson, 2020; Ohm et al., 2023). Nevertheless, although promising, the current trends in annotation and interface design frequently hinge on techniques and methodologies originally devised for images. These methods encompass such as visual similarity based on ImageNet, colour analysis, as well as the utilization of t-SNE versus UMAP and clustering. This limitation prompts a critical need for approaches tailored specifically to video data's unique and holistic characteristic – the narrative. Unlike other method of encoding videos (usually focus on one perspective or one modality), this work addresses this gap by creating a narrative driven latent space using the real-world archive of RTS (Radio Télévision Suisse) leveraging the state of the art text-to-video embedding techniques and captioning models. This space is created by aggregating and aligning the latent features from the multi-modal video side and the rich and abundant textual narrative descriptions. The ultimate goal is simple – transforming videos into vectors that are more narrative aware and holistic. This work will also explore several experimental use cases of exploring the archive

using such a vector, one of the most straight forward would be to use narrative text snippets to retrieve video contents, or to use a longer narrative text to retrieve and remix short clips and recreate longer narrative videos.

Deep Fakes at Face Value: Self-Image and Authority

Dr James Ravi Kirkpatrick, University of Oxford

Advances in AI have made fake content and manipulated media easier to produce and more widespread than ever before. The development of powerful machine learning techniques allows non-experts to produce fake content, such as deepfakes or other AI-generated media, by using those programs and source material they wish to emulate. Despite the creative potential for fake content, its manipulative and exploitative potential require careful ethical consideration. This paper argues that many ethical issues surrounding fake and AI-generated content can be fruitfully explained in relation to our antecedent interests in having authority over certain domains, such as our representation (or self-image) and our bodies of work, and how these may be used by others. I shall argue that, under certain circumstances, violations of our authority interests equate to serious moral wrongs. Furthermore, I will argue that consideration of our authority interests helps us to formulate constraints on the permissible use of AI-generated content.

The Illusion of Knowledge: Interpreting AI Hallucinations in the Study of Humanities and the Black Box of LLMs

Amina El Ganadi, University of Palermo and University of Modena and Reggio Emilia

The research investigates the phenomenon of 'hallucinations' in artificial intelligence, focusing specifically on the application of Chat GPT in Islamic studies. It is part of a broader project that encompasses digital humanities, biblioteconomy, and IT services. This study delves into how Chat GPT's capabilities and challenges manifest within this context, highlighting its intersection with these diverse, yet interconnected fields. The study, which aligns with Strands 1 (Cultural Heritage) and 2 (Ethics), analyzes Chat GPT's hallucinatory behaviors. Instances observed include the model's creation of non-existent references, data, or citations and visual inaccuracies like improper rendering of Arabic script and the generation of fictitious Chinese characters, suggesting difficulties AI may encounter in accurately representing diverse cultural and linguistic contexts. A framework is suggested to assess the impact of these hallucinations on user experience and the dissemination of knowledge. The study

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contemplates ethical implications, including potential misinformation risks and reliance on AI in academic and public domains, and reflects on the responsibilities of AI developers and users in ensuring information integrity. The research additionally investigates a unique implementation: a GPT-based AI librarian tailored for expertise in Arabic and Islamic knowledge. This initiative taps into the LLM model's capabilities for specialized knowledge management, particularly in organizing and distributing Islamic scholarly texts. The GPT Librarian project showcases an innovative approach to integrating artificial intelligence into cultural heritage, focusing on Islamic studies. While not substituting human librarians and scholars, this AI librarian functions as an assistant, operating based on its training data and accessible resources.

Disrupting Automatism: Deepfakes, Performativity and Faciality

Andrew Philip, University of Reading

The control of population powered by facial recognition reduces complex subjectivity to reductive binaries of identity. Computational facial mapping relies on the digital image of the face becoming, as Olga Goriunova (2019, 14) puts it, 'the new fingerprint'. Facial identification practices are so ubiquitous that we barely question the conventional relationship between a face and its identity. Similar computational facial recognition and mapping processes are also the first steps performed in the production of a deepfake. Contemporary artist James Coupe examines these methods of facial recognition, classification and control through three deepfake-based artworks in a series called Warriors (2020). The work invites gallery visitors to make a 3D scan of their faces using a tablet's camera. These scans are synthetically matched to characters from the cult North American film The Warriors (1979), playing out on the gallery screens. Coupe employs a commercially available structured database to classify and merge the face of each participant to a relevant character from The Warriors based on class, ethnicity, and gender. Escaping the demographic interpellations of the algorithm, Coupe claims, is virtually impossible. This paper thinks through the implications of Coupe's installation by reading it through Judith Butler's notion of performativity (1999/1990) and Gilles Deleuze and Felix Guattari's notion of faciality (2013/1980). I argue that creative deployments of synthetic media such as deepfakes can highlight problematic image-based interpellations we tend to automatically accept. Drawing from Butler, I argue that while escaping frameworks of subjectification might be impossible, practices such as Coupe's at the very least disrupt the epistemological automatism

that enables them. By challenging practices that generate identities, we can attempt, after Butler (2011, xvi), to reconfigure what counts as the world.

AI Generated Content and Sensitive Historical Circumstances

Ella Wright, University of Birmingham

Laura Mulvey's Death 24x a Second (2006) highlights the paradox of cinema: there exists an advancing progression of the cinematic film played at 24 frames per second, which is parallel to the pastness of each singular static frame. Thus, there is a simultaneous life and death in the moving image, and the 'stillness of death' is present in cinema (Mulvey, 2006: 88). Mulvey's work inspired an aim to identify photographs embodying the 'presence of death' in their photographic stillness (Mulvey, 2006: 102). Registration photos from Auschwitz-Birkenau emerged as significant examples. Yet, this raised further queries: what would it look like if these photographs moved? Would the motion of cinema add life to these images so tainted with death, as Mulvey suggests? To interrogate this, AI technology was employed to reanimate these photos in a piece of videographic creative practice. Please watch the video at this link: https://vimeo.com/748810527.

The proposed paper seeks to address a pertinent enquiry raised by the creation of this video: What are the ethical and cultural implications of using AI-generated content in the manipulation and creative reinterpretation of photographs from sensitive historical circumstances?

The paper will navigate this question through a critical evaluation and close analysis of the video and its methodologies. Through doing this, it seeks to investigate the creative potential of AI-generated content, particularly within film practice. Additionally, it seeks to engage in a rigorous examination of the ethical considerations inherent in such endeavours, contributing to and furthering broader discussions within the DH-AI communities.

Using AI for the Documentation of Intangible Cultural Heritage

Professor Gabriella Giannachi, University of Exeter, Professor Steven Benford, University of Nottingham and Dr Lydia Farina, University of Nottingham

Using AI for the documentation of intangible cultural heritage explores the potential roles AI could play in interpreting, documenting, preserving, and making accessible intangible forms of cultural heritage for future generations. Grounding these potential uses of AI in current

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practices and debates about performance and new media documentation and conservation, this paper utilises Lynn Hershman Leeson's Agent Ruby (1998-2002) and Blast Theory's Cat Royale (2022) as case studies to analyse the value and potential impacts of AI for the documentation of and conservation of ephemeral art forms that, respectively, consist of an artificial intelligent web agent shaped by user engagement and a 'utopia' where cats live in harmony with AI. In particular, the paper analyses the use of AI for contextualisation, audience documentation, and the documentation of change, which are key parameters that current documentation practices fall short of, as well as the use of AI in the generation of 'live' archives. Specifically, the paper investigates the role played by AI ecosystems by which we mean a series of interlinked ecosystems consisting of different individual actors and groups interacting with each other and with AI. Finally, the paper provides a reflection about the identity and roles of AI in the creation of documentation and its archives, considering that AI may be both the creator and documenter of a work and so the documentation may be both a historic record and a specific iteration of an artwork.

AI and the Visual Page Design: a Study of Dante's Commedia in Print

Professor Guyda Armstrong, University of Manchester and Dr Giles Bergel, University of Oxford

This paper will present initial findings from the AHRC-funded Envisioning Dante c. 1470-1630 project, which employs machine learning to extract and analyse the material structures and readerly affordances of the emergent printed page. For this project, we have digitised 50,000 individual pages from 97 copies of 47 digitised Comedy editions printed in several languages. We view all elements on the page surface (e.g. letterforms, paragraphs, headers, and illustrations) as neutral templates dynamically intersecting with semantic content. We applied state-of-the-art visual AI techniques to segment each page and to match, compare and classify its constituent graphical elements. We will show how generic segmentation models such as Mask -RCNN can be retrained for bibliographical study, using a 'human in the loop' workflow, and will evaluate how our model performs on unclassified images from across the Dantean corpus. We will then demonstrate the use of image comparison software to reveal both differences and concordances across editions, and show how visual elements can be made searchable and clustered for analysis. Our paper will argue for a history of the Dantean text

embedded in visual design, in which the poem and its commentaries, illustrations, and paratextual accoutrements are understood as discrete entities manifested on the page, rather than reading them through the accretions of over 700 years of philological scholarship.

Archaeological Storytelling and Procedural Content Generation in Games

Florence Smith, Queen Mary, University of London

Procedural content generation, in which content is generated algorithmically rather than by hand, has long been used in video games. Similarly, environmental storytelling is a narrative design concept commonly associated with games, which arguably encourages players to interpret material remains archaeologically. My doctoral research explores how the affordances of procedural content generation as a form of digital craft specialisation can be combined with archaeological storytelling. The generative archaeology game 'Nothing Beside Remains' will be presented as a case study. NBR invites players to explore the ruins of a procedurally generated abandoned village. I adapted the game with developer Mike Cook for a study on how players interpret procedurally generated content archaeologically. The preliminary results of this study will be presented. Finally, the application of this work for public engagement with archaeological theory and method through storytelling will be discussed.

Exploring the Synergy of Artificial Intelligence and Virtual Reality for Heritage: a Systemic Literature Review

Dr Mara Oliva, University of Reading

This conference paper presents a comprehensive systematic literature review that investigates the intersection of artificial intelligence (AI) and virtual reality (VR) in the context of heritage preservation. Heritage sites hold immense cultural, historical, and societal value, making their preservation a crucial endeavour. The integration of AI and VR technologies has emerged as a promising approach to enhance the documentation, conservation, and immersive presentation of cultural heritage. The systematic review employs rigorous methodologies to identify, analyze, and synthesize existing research from a diverse range of scholarly sources. The paper categorizes the literature based on key themes such as digitization techniques, preservation methodologies, interactive experiences, and intelligent data analysis. It critically examines the current state of AI and VR applications in heritage preservation, highlighting technological advancements, challenges, and gaps in the

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existing literature. The findings of the review reveal a growing body of research exploring innovative applications, including AI-driven image recognition for artifact classification, VR-based virtual tours for remote accessibility, and intelligent data analytics for predictive heritage conservation. However, challenges such as ethical considerations, technological limitations, and the need for interdisciplinary collaboration are identified as crucial areas for further investigation. The paper contributes to the academic discourse by offering insights into the evolving landscape of AI and VR integration in heritage preservation. It also provides a foundation for future research directions and informs practitioners, researchers, and policymakers about the potential benefits and challenges of employing these technologies for safeguarding our cultural heritage in the digital age.

Digital Assemblages with AI for Creative Interpretation of Short Stories

Dr Kieran O'Halloran, King's College London

While the study of creative artifacts has been central to the humanities, learning to think inventively has not. Yet, creative thinking is now an essential employability skill; the same applies to AI literacy. In providing opportunities for students to experiment with the creative possibilities of Generative AI, the digital humanities has a clear role to play in usefully extending creative thinking in higher education. I highlight an undergraduate module I designed and teach where students make inventive interpretations of short stories – the byproduct being creative thinking extension. Students construct an 'assemblage' around a short story – an evolving aleatory network of different connections promoting experimentation with unexpected ideas. One connection is to research literature illuminating the psychology of protagonist(s) in the story. Another connection involves students employing Large Language Model (LLM) Generative AI output from inputting paragraphs from the story. This experimentation with different connections helps exceed students' initial intuitions about a short story, facilitating inventive interpretation. I demonstrate the pedagogy using Edgar Allan Poe's short story, 'The Black Cat', whose protagonist is a homicidal psychopath. For producing an inventive interpretation of this story, the assemblage includes research on language used by homicidal psychopaths to discuss their murders, easy-to-use text analysis software and the free-to-use LLM Generative AI, 'ChatGPT'. I detail the aleatory value of ChatGPT for enriching inventive interpretation of a short story and, in so doing, helping extend students' creative thinking. See O'Halloran (forthcoming) for more information on the pedagogy.

Best Practices for Using Conversational AI tools in Ancient Language Teaching and Learning

Jackie Baines and Edward Ross, University of Reading

Over the 2023-2024 academic year, classics departments have been working towards ethically integrating the use of artificial intelligence (AI) tools into their curricula. When it comes to ancient language learning, this involves addressing the day to day use of AI tools in independent language study. As part of the 'ChatGPT: A Conversational Language Study Tool' project at the University of Reading, students were surveyed following tutorials on the nature of and ethical considerations for using AI tools. Students indicated that they were apprehensive of using digital tools to support their learning due to the inconsistency of AI outputs (Ross and Baines 2023). Following rigorous testing of a wide range of conversational AI tools, students have found that different tools are effective for different types of learning tasks. As a result of this testing, conversational AI tools were integrated into the departmental digital language learning tool guides. These contain tested guiding prompts to allow students a more streamlined experience when using conversational AI. This presentation will discuss further end-of-year survey results from students to determine the impact of using conversational AI tools for supporting their language study. Thus, the developments of new learning technologies are causing a shift in the methods for teaching ancient languages. By critically modifying our approach to teaching ancient languages with these tools, we can support a greater diversity of learners with their language study beyond the classroom.

Reimagining the Canterbury Tales for the Classroom: A Student-Led Approach to AI Edition-Making

Dr Sophie Whittle, University of Sheffield

The recreation of Middle English texts for modern audiences poses many challenges, particularly in terms of producing an edition that preserves the cultural tradition of manuscripts, while engaging students in the medieval period. There is also knowledge to be gained about the methodological process of edition-making which involves the use of AI, both on the part of the editor and the student. Since the launch of generative AI, there are increased concerns over research integrity at universities. Goodlad (2023) recognises that AI already posed a threat via the need for power over communities, meaning it is pertinent that students engage with AI biases before using it. In this talk, I present the creation of a digital edition prototype of Geoffrey Chaucer's Pardoner's Prologue and Tale from

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The Canterbury Tales (C21 Editions project). With university students at the centre of its production, I explore the edition's features of translation, annotation and guide-generation, formed using AI alongside the human editor. Could editorial methods be made more streamlined through AI, without any loss of quality and authority? And how might digital editions assist the student in interpreting medieval data, while increasing their awareness of the issues of AI? In a focus group, one student referred to classroom ChatGPT as 'learning in reverse engineering' – an interrogation of AI with its (current) lack of training in Middle English. I thus show that AI-assisted editions allow students to deepen their understanding of the Middle Ages, while assisting scholars in the edition-making process. Equally, I demonstrate that engagement with AI ensures students consider the practical and ethical issues of adopting such methods in their research.

Distribution, Holism, and the Instability of Meaning

Dr Jumbly Grindrod and Dr Nat Hansen,
University of Reading

At the heart of large language models is an approach to capturing linguistic meaning known as distributional semantics. One largely-overlooked feature of distributional semantics is that it is committed to what philosophers call a holistic conception of meaning: the meaning of a word depends on its relations to other words in the model. A famous objection against holism is the instability objection: if meaning were holistic, then any change in meaning for one word would lead to changes in meaning for many or possibly all words. In this talk, we examine whether the instability objection poses a problem for distributional semantics. We construct two small language models made from novels and encyclopaedia articles respectively, and we explore how individual words change when the training data for those models increase in size. We argue that the instability that these models display is constrained by the structure and scale of relationships between words, such that the resistance to change for a word is roughly proportional to its frequent and consistent use within the language system. In short, distributional models do not suffer from problematic instability, despite being holistic. Language model technology then, doesn't just represent the state of the art in natural language processing, but can also inform central philosophical debates regarding meaning and language.

Leveraging Computer Vision and Multimodal Language Models to Understand the Visual Media of the Protestant Reformation

Dr Drew Thomas, University College Dublin

The printing press was at the heart of the Protestant Reformation's success. Not only was the spread of the written word transformed during this period but so was visual communication. Until now it has been impossible to study this phenomenon at scale due to the inability to know which books contained illustrations or a reliable method of analysing them. This project relies upon an image corpus of over six million items identified with a Convolutional Neural Network (CNN) for object detection in early modern books, specifically targeting pages with illustrations and other graphical elements. I am now analysing this extensive corpus using multi-modal language models. These models facilitate a nuanced search and analytical capability, offering insights into the imagery beyond traditional metadata. A vision-language model integrates a language model to interpret search queries and a vision model to analyse image content. This dual approach circumvents the need for manual tagging or labelling, allowing for a more efficient and comprehensive understanding of visual data. Furthermore, leveraging the OpenAI GPT-4 model, I can generate descriptive metadata for these images, transforming the way we search and analyse visual content. This cutting-edge methodology is applied to approximately 68,000 books from the Reformation era, revealing how Protestants and Catholics employed printed images to forge religious identities and critique adversaries. This research not only contributes significantly to the field of Digital Humanities by demonstrating the application of AI in cultural heritage studies, but it also raises pertinent questions about the role of AI in historical interpretation.

Large Language Model-Based Linguistic Annotators for Research Corpora

Abdulrahman A.A. Alsayed, University of St Andrews

Corpus linguistic study and the digital humanities converge through the use of computational tools for the textual analysis of digitized corpora (Maci et al. 2022). Depending on the research objectives, corpus study can require access to highly annotated datasets tagged with a variety of specialized information. The annotation process, while essential, can be arduous and time consuming to a degree that impedes research progress. Recent advancements in large language models (LLMs) have sparked interest in leveraging LLM-based agents to automate human tasks across various fields (Cheng et al. 2024). This paper introduces

a novel approach of utilizing LLM-based agents trained as linguistic annotators. It begins by detailing the design of an application that fine-tunes selected LLMs to annotate corpora with various linguistic tags such as part of speech, gender, person, number, definiteness, and case marking. The paper outlines the coding of the annotator, prompt engineering for system instructions, and the creation of the demonstration dataset used for the few-shot training of agents. The second part of the discussion centers on the generated annotations. Evaluation metrics were applied to assess the annotations, and the results were employed iteratively to enhance the annotators and mitigate common issues associated with LLMs, such as hallucination. A human-in-the-loop approach was also employed to manually check and correct the annotations. Drawing insights from the evaluation and manual checking phases, the paper concludes with a discussion about the efficiency of LLM annotator agents and their future prospects in linguistic research and broader humanities' work.

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In order of appearance on the programme

Dr José Pedro Sousa, Universidade de Lisboa

José Pedro Sousa completed his PhD in Theatre Studies in 2018 (School of Arts and Humanities, University of Lisbon) and his MSc in Digital Humanities in 2023 (University College London). He is a Researcher at the Centre for Theatre Studies of the University of Lisbon, where he is also the co-coordinator of the group 'History of Theatre and Performance'. He is editor of the section 'From the archives' of the *European Journal for Theatre and Performance* of the European Association for the Study of Theatre and Performance (EASTAP) and convenor of the working group Digital Humanities in Theatre Research of the International Federation for Theatre Research (IFTR). His main areas of interest are theatre history, digital edition of early modern drama, theatre and performance archives and digital humanities.

H. Gu, J. Vandommele and J.S. Love, TU Delft and National Library of the Netherlands

H. Gu is an independent designer specializing in human-computer interaction and a PhD candidate within the Department of Design, Organization and Strategy at TU Delft. His academic work focuses on synthetic stakeholders and human-machine conversations.

J. Vandommele is curator of post-mediaeval and modern manuscripts at the National Library of the Netherlands. He is a specialist in history and literature of the Low Countries.

J.S. Love is a research fellow in heritage design and design history within the Department of Sustainable Design Engineering at TU Delft. His current work focuses on innovative ways to explore history and using cultural heritage as a driver for societal innovation.

Dr Mark McKerracher, University of Oxford

Dr Mark McKerracher works in the Centre for Digital Scholarship at the Bodleian Libraries (University of Oxford), helping researchers to design and deposit sustainable research data. Before this, he was a postdoctoral researcher on the ERC-funded 'Feeding Anglo-Saxon England' project at Oxford's School of Archaeology, specialising in environmental archaeology and data management. Outside academia, he has worked in project management and software development.

While Dr McKerracher is Principal Investigator of AntiquAI, the project involves a wider group of researchers with the following expertise:

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- Professor Michael Lewis (British Museum): methods and operation of the Portable Antiquities Scheme.
- Professor Helena Hamerow (School of Archaeology, University of Oxford): archaeological methods and typologies.
- Dr Megan Gooch (Bodleian Libraries, University of Oxford): numismatics and digital humanities.
- Professor Andrew Zisserman, Dr Abhishek Dutta and Mr Horace Lee (Visual Geometry Group, Dept of Engineering Science, University of Oxford): computer vision and image classification; this Group is developing AntiquAI's software.

Erin Canning, University of Oxford

Erin Canning is a DPhil student in the Department of Engineering Science at the University of Oxford. Their project, 'Applications of computational approaches in addressing problematic terminology within V&A museum catalogues', in which they are exploring potential uses of computational methods for the purposes of critical and reparative cataloguing, is an AHRC -funded Collaborative Doctoral Partnership co-supervised by the University of Oxford and the Victoria & Albert Museum. Prior to beginning their studentship, Erin held the position of Ontology Systems Analyst at the Linked Infrastructure for Networked Cultural Scholarship project (LINCS). Erin holds Masters degrees in Information (MI) and Museum Studies (MMst) from the University of Toronto, where they conducted research examining how art museum information systems could be designed to accommodate affect as a fundamental way of knowing material culture. Erin is interested in the possibilities that semantic data modelling offers for structuring cultural heritage knowledge and data in more holistic and inclusive ways, as well as feminist and queer approaches to museum data practices.

Cate Cleo Alexander, University of Toronto

Cate Cleo Alexander (she/her) is a PhD Candidate in the Faculty of Information at the University of Toronto. Prior to U of T, Cate obtained a BA Combined Honours in History and Classics and a MA in Digital Humanities at the University of Alberta. Cate's doctoral research examines digital public history through feminist new-materialist and political economic theory in order to establish a better understanding of how platforms influence the production, distribution, and consumption of public history. When she is not studying cultural heritage, digital humanities,

or media theory, Cate can be found reading trashy murder mysteries, watching long video essays on YouTube, or dancing (Lindy Hop, blues, fusion, balfolk, contra, west coast, etc.). Cate's research is generously funded by a SSHRC Joseph Armand Bombardier Canada Graduate Scholarship – Doctoral (CGS-D) Award.

Dr Jenny Kidd, Cardiff University and Dr Eva Nieto McAvoy, King's College London

J. Kidd is a Reader, School of Journalism, Media and Culture, Cardiff University. Formerly a web editor and developer, Dr Jenny Kidd now researches at the intersection of digital heritage and participatory cultures. Recent publications have explored; algorithmic systems and digital memory, crypto art and questions of value, social media communications, and varied uses of immersive media. Jenny's work is generally collaborative and has included partnership with (for example) Historic Royal Palaces, Imperial War Museums, Tate Britain, Amgueddfa Cymru, yellow brick and the Welsh Centre for International Affairs. Jenny's books are Critical Encounters with Immersive Storytelling (with Alke Gröppel-Wegener, 2019, Routledge), Representation: Key Ideas in Media and Cultural Studies (2015, Routledge) and Museums in the New Mediascape: Transmedia, Participation, Ethics (2014, Routledge). Edited books include Challenging History in the Museum (2014, Routledge) and Performing Heritage (2011, Manchester University Press).

https://profiles.cardiff.ac.uk/staff/kiddjc2

E. Nieto McAvoy is a Lecturer in Digital Media, Department of Digital Humanities, King's College. I am a researcher of digital media and culture, with a focus on the politics of new media in memory and cultural work. Recent publications include articles on algorithmic memory and afterlives, mediations of cultural policymaking and digital practices in museums and public service broadcasters. I have been a postdoctoral researcher on the Culture Value Project at the OU (2017–2019) and on the Creative Industries Policy and Evidence Centre at Cardiff University, where I also lectured on digital media and culture (2019-2023). I was co-Investigator on the AHRC 'COVID-19: Impacts on the cultural industries and implications for policy' at the Centre for Cultural Value. Most recently, my work focuses on the concept of 'synthetic pasts', exploring the ways past-ness is evoked, framed, re-worked and distorted through automated and algorithmic intermediaries and global media platforms.

https://www.kcl.ac.uk/people/eva-nieto-mcavoy

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Dr Jon Weinbren, University of Surrey

Jon Weinbren leads on Film, Animation and Digital Arts at the University of Surrey and is Director of the Centre for Creative Arts and Technologies (C-CATS). These multi-disciplinary initiatives develop creative practice and research in the swathe of contemporary and emerging moving image media forms, including film, television, visual effects, animation, performance capture, videogames, digital theatre, motion graphics and computational arts. Previously, Jon set up and ran the Games Development Department at the UK's National Film and Television School. Jon's professional journey has involved extended stints in both academia and industry, often simultaneously. Having spent many years running his own independent studio, Jon's experience covers film, television, animation, interactives, videogames, commercials, installation, and performing arts, with professional credits including screenwriter, story editor, director/producer, animation/vfx producer, games designer/developer and performance director.

Yang Yuchen, Swiss Federal Institute of Technology in Lausanne

Yuchen is working on the SNF Sinergia interdisciplinary project 'Narratives from the Long Tail: Transforming Access to Audiovisual Archives' under the supervision of Prof. Sarah Kenderdine at the Laboratory for Experimental Museology. His research interests include machine learning on heterogeneous data, knowledge representation and semantics, audiovisual narratives, digital curation, and HCI. He is especially interested in their application in the cultural and heritage sector in pursuit of the future of memory institutions. His current work focuses on using holistic narrative-aware automated captioning of videos to improve multimodal text-to-video embedding to align better between the textual and video-side features. He is also very interested in working on innovative interfaces that explore complex latent space cultivate audiovisual archival discovery. Before joining EPFL, Yuchen worked for McKinsey & Company, NLP start-up Eigen Technologies, and Alibaba Group in various roles, with a focus on digital transformation and utilising unstructured data.

Dr James Ravi Kirkpatrick, University of Oxford

Dr James Ravi Kirkpatrick is a Fixed Term Fellow in Philosophy at Somerville College, University of Oxford. He works on topics in the philosophy of language, epistemology, ethics, philosophy of mind, with a special interest in the Ethics of AI.

Amina El Ganadi, University of Palermo and University of Modena and Reggio Emilia

In 2023, she began her doctoral studies at the University of Palermo while concurrently holding the position of a research fellow at the Foundation for Religious Studies in Bologna and Palermo. Starting from January 2022, she became a member of the research team dedicated to the 'Plorabunt' project, which is focused on compiling a dataset related to individuals killed in places of worship since 1982. Her doctoral research revolves around the analysis of Islamic textual genres and the formulation of prerequisites and specifications for the 'Digital Maktaba' database, a software designed for the creation of multialphabetic digital catalogs. Between July 2015 and July 2019, she was the recipient of scholarships awarded by Hanban/Confucius Institute Headquarters, which enabled her to engage in study and research programs at Renmin University of China (RUC), Xi'an International Studies University (XISU), and Xiamen University (XMU), with a focus on modern standard Chinese. Her research interests encompass a diverse array of topics, including Digital Humanities, the history of ancient and modern China, the history of Islamic manuscripts in China, diplomatic relations between Italy and China, the political and economic development of contemporary China, and international relations between the People's Republic of China and the European Union.

Andrew Philip, University of Reading

Andrew Philip is a lecturer in filmmaking, a PhD candidate, and Knowledge Exchange Fellow at the University of Reading. His practice as research doctoral project includes the production of a feature-length documentary as a means to investigate research themes pertaining to memory, authorship, agency, and technology. This project included a six-month period of research at the School of Communications and Art in the University of São Paulo. Andrew has written about the technical, historical and aesthetic entanglements of digital film colour in the context of his practice, published in the journal Comparative Cinema. He was born and grew up in Brazil and has worked in the USA and UK for over two decades as an editor, animator and visual effects artist on feature films and broadcast documentaries.

Ella Wright, University of Birmingham

Ella Wright is a doctoral candidate at the University of Birmingham, undertaking an audio-visual PhD. They also work at the University as the Digital and Media Technician. Their research explores what is commonly termed as 'the video

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essay', face to face with notions of embodiment, materiality, logocentrism and epistemology regarding scholastic video making research-by-practice. Their investigations hinge on 'the video way of thinking' (a concept by Dr Ben Spatz), using this to examine processes that underpin videographic creation through its relationship to written scholarship, and tracing the implications and possibilities this has on the form. Outside of doctoral study, they are interested in filmmaking as an interdisciplinary research methodology. To this end, they have recently completed a documentary film in association with Birmingham Business School, examining the inclusion of people with learning disabilities in the workplace. This film is being used as a case study to address the ontological, epistemological, and axiological underpinnings of documentary filmmaking as a research method, arguing for the adoption of a critical realist ontology. Ella's work in documentary filmmaking extends to the professional film industry as an editor, having recently completed work on their first feature length documentary film 'Children of the Wicker Man' directed by Justin Hardy. Affiliation University of Birmingham (Edgbaston, Birmingham, B15 2TT)

Professor Gabriella Giannachi, University of Exeter, Professor Steven Benford, University of Nottingham and Dr Lydia Farina, University of Nottingham

Gabriella Giannachi is Professor in Performance and New Media at the University of Exeter, UK where she directs the Centre for Intermedia and Creative Technology. She has published several books on new media and documentation including *Performing Presence: Between the Live and the Simulated*, co-authored with Nick Kaye (2011); *Performing Mixed Reality,* co-authored with Steve Benford (2011); *Archaeologies of Presence,* co-edited with Michael Shanks and Nick Kaye (2012); *Archive Everything* (2016, repr. 2023); *Histories of Performance Documentation,* co-edited with Jonah Westerman (2017); *Documentation as Art: Expanded Digital Practices,* co-edited with Annet Dekker (2022); and *Technologies of the Self-Portrait* (2022).

Steve Benford is the Dunford Professor of Computer Science at the University of Nottingham where he founded the Mixed Reality Laboratory in 2000 and has directed the Horizon Centre for Doctoral Training since 2009. His research explores how digital technologies, and foundational concepts and methods to underpin these, can support cultural and creative experiences, including new forms of musical performance. He has previously held an EPSRC

Dream Fellowship, was a Visiting Professor at the BBC and a Visiting Researcher at Microsoft. He has won four best paper awards at the ACM CHI conference and was elected to the CHI Academy in 2012. His collaborations with artists have led to the award of the Prix Arts Electronica Golden Nica for Interactive Art, Mindtrek Award and four BAFTA nominations.

Lydia Farina is Assistant Professor in the Department of Philosophy at the University of Nottingham which she joined in 2019. Her current research focuses on the philosophy of mind and metaphysics. More specifically she is looking into the nature of emotion, causal powers of kinds and Human/AI Interaction. She has published on AI in several journals and edited collections including 'Artificial Intelligence Systems. Responsibility and Agential Self-Awareness' (in Müller 2021). She is Principal Investigator of the Creating a Dynamic Archive of Responsible Ecosystems in the context of Creative AI as part of the BRAID Scoping to Embed Responsible AI in Context, funded by the AHRC.

Professor Guyda Armstrong, University of Manchester and Dr Giles Bergel, University of Oxford

Guyda Armstrong is Professor of Italian and Director of the John Rylands Research Institute and Library at the University of Manchester, and formerly led the University of Manchester's Digital Humanities initiative, DH@Manchester, from 2014 until 2020. She is a book historian and early modern literary scholar, whose research focuses on early Italian literature and its transmission across languages, cultures, and media from the medieval period to the present day, with wider interests in early modern print cultures, visual design, digital humanities and design. Her current AHRC-funded research project, Envisioning Dante, c. 1472-c. 1630: Seeing and Reading the Early Printed Page is deeply situated in the John Rylands Research Institute and Library's world-leading early print collections, and uses cutting-edge machine vision technologies to explore the evolution of the graphic design of Dante's Divine Comedy through time and across different languages and reading communities.

Giles Bergel is Senior Researcher in Digital Humanities in the Department of Engineering Science at the University of Oxford. A book historian by training, he has worked on numerous digital projects including an archive of the Stationers' Register; an edition of the ballad The Wandering Jew's Chronicle; and the database Bodleian Ballads Online, which pioneered the application of visual search technology to printed illustrations. He is currently based in the Visual Geometry Group at

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Oxford (VGG), where he manages an engagement programme translating research in computer vision and multimodal machine learning to meet the needs of researchers in the humanities and cultural heritage. He is a named researcher on the AHRC-funded research project, Envisioning Dante, c. 1472-c. 1630: Seeing and Reading the Early Printed Page.

Florence Smith, Queen Mary, University of London

Florence is a specialist in archaeological storytelling and video games. They are a doctoral researcher in game AI on the IGGI programme at Queen Mary University of London. Their work builds on professional experience as an archaeologist (Museum of London Archaeology), and games writer (Die Gute Fabrik). They have also worked with the British Library on pioneering new strategies for preserving interactive fiction.

Dr Mara Oliva, University of Reading

I am a political historian and a digital humanist. I work at the intersection of history and digital technologies. My research focuses on twentieth-century US history, particularly the US presidency, Soft Power, Climate Change Diplomacy, New York City and Heritage. I am also the University's Digital Humanities Academic Champion. In my role, I promote an understanding of Digital Humanities as a discipline within the University, and the integration of cultures and principles from Digital Humanities into wider research practice. I lead the Community of Practice and provide mentoring and subject-specific advice for digital research projects.

Dr Kieran O'Halloran, King's College London

Dr Kieran O'Halloran is a Reader in Applied Linguistics at King's College, University of London. He is an educationalist who researches and teaches creative thinking and critical thinking using digital technologies, intersecting interests in creative thinking with literary stylistics and digital multimodal interpretation of poetry. Publications include Posthumanism and Deconstructing Arguments: Corpora and Digitally-driven Critical Analysis (Routledge 2017); Digital Literary Studies: Corpus Approaches to Poetry, Prose, and Drama (with David Hoover and Jonathan Culpeper, Routledge 2014).

Jackie Baines and Edward Ross, University of Reading

Jackie is a Lecturer in Classics at the University of Reading with specialism in Latin language and ancient language pedagogy, including the development of ethical policy for use of AI in language classes.

Edward recently completed his PhD at the University of Reading. Edward is also a Research Officer and Library Evening Attendant. He researches several conversational AI tools and leads ethical-use workshops.

Dr Sophie Whittle, University of Sheffield

Dr Sophie Whittle is a Postdoctoral Research Associate at the Digital Humanities Institute, University of Sheffield. She works on the 'C21 Editions' project, and is responsible for producing a digital edition prototype of Geoffrey Chaucer's Pardoner's Prologue and Tale from The Canterbury Tales. The project investigates machine-assisted methods in preserving the Chaucerian tale, and she is also interested in user-led and student-centred design in the creation of interactive resources on the Middle Ages. She holds a PhD in historical linguistics, and recently had a paper accepted investigating variation in the language structure 'verb second' in Chaucer's prose works, highlighting the interaction of factors of text type, information structure and discourse relations in driving language change. In her spare time, she is an organiser for Sheffield Feminist Archive, where she co-created a digital archive named 'Women in Lockdown', a collecting project documenting women's and marginalised folks' experiences of the pandemic in Sheffield.

Dr Jumbly Grindrod and Dr Nat Hansen, University of Reading

Jumbly Grindrod is a lecturer in philosophy at the University of Reading. He works in the broad sub-disciplines of philosophy of language and epistemology. More recently, his research has focused on whether computational approaches to language can inform philosophical debates. This includes the use of corpus linguistic approaches to language, and also the language modelling technology that underlies large language models.

Nat Hansen is associate professor in philosophy at the University of Reading. His research focuses on a number of related areas including experimental philosophy, philosophy of language, the ordinary language philosophy movement, colour and colour terms, and much more.

Dr Drew Thomas, University College Dublin

Drew Thomas is a Science Foundation Ireland – Irish Research Council Pathway Fellow in the School of History at University College Dublin. Specialising in early modern material culture, he investigates the history of communication during the Protestant Reformation. Currently, he leads the digital humanities project 'Visualizing Faith: Print, Piety and Propaganda', using artificial intelligence to investigate the use of visual media by Catholics and Protestants during the Reformation. He received his Bachelor's degree from Saint Louis University (2010), Master's degree from Harvard University (2012) and a PhD in History from the University of St Andrews (2018). He is the author of *The Industry of Evangelism: Printing for the Reformation in Martin Luther's Wittenberg* (Brill, 2022).

Abdulrahman A.A. Alsayed, University of St Andrews

Abdulrahman A.A. Alsayed is a PhD researcher in language and linguistics at the School of Modern Languages, University of St Andrews. He holds his master's degree in general linguistics from the University of Oxford where he studied natural language syntax, information structure, and corpus linguistics. His doctoral research focuses on the syntactic analysis of spoken corpora and on language documentation utilizing extended reality technology. In 2022, he was awarded the doctoral enrichment award by The Alan Turing Institute, the United Kingdom's national institute for AI and Data Science. During his time with the Turing, he explored approaches to support linguistic research through advancements in artificial intelligence. His methodology of documentation utilizing extended reality was presented in the Linguistic Association in Canada and the United States' International Conference (LACUS 2023) where it was co-winner of the conference best pre-doctoral paper prize. His most recent work entitled 'Extended Reality Language Research: Data Sources, Taxonomy and the Documentation of Embodied Corpora' appears in the special collection on New Directions in Digital Modern Languages Research published in Modern Languages Open by Liverpool University Press.