

ARTEFACTS XXIX / CONGRUENCE ENGINE FINAL CONFERENCE:

NEW DIGITAL PRACTICE FOR SCIENCE AND TECHNOLOGY COLLECTIONS

SCIENCE MUSEUM, LONDON

13th – 15th October 2024

Conference location: Dana Research Centre and Library, 165 Queen's Gate, South Kensington, London SW7 5HD

Contact: research@sciencemuseum.ac.uk

SUNDAY 13 OCTOBER

Time	Activity	Location
13:00-13:30	Registration & Tea/Coffee	Library
13:30-14:00	Welcome & Introduction to the conference	Studio
14:00-15:00	PANEL 1: LOOKING FORWARD AND LOOKING BACK: CURATING THE DIGITAL IN A TIME OF TECHNOLOGICAL CHANGE Chair: Petrina Foti	Studio
	<i>Panellists:</i> Martin Weiss (Technomuseum, Mannheim) Jessica Walthew (Cooper Hewitt Smithsonian Design Museum) Laura Ronzon (Museo Nazionale Scienza e Tecnologia Leonardo da Vinci) Simona Casonato (Museo Nazionale Scienza e Tecnologia Leonardo da Vinci) Andrea Lipps (Cooper Hewitt Smithsonian Design Museum) Rachel Boon (Science Museum)	
15:00-15:30	Coffee Break	Library
15:30-17:00	SESSION 1: DIGITAL CATALOGUES, DATABASES, AND RECORDS Chair: Juan-Andreas Leon	Studio
	Hal Wallace (National Museum of American History), <i>A Tale of Two Eras: the Wingard Radio Collection at the Smithsonian</i> Ida Morisetti & Laura Ronzon (Museo Nazionale Scienza e Tecnologia Leonardo da Vinci), <i>Beyond the Walls: Reimagining Museum Catalogues in the Digital Age</i> Katherine Enright (University of Cambridge), <i>Digital History in the Herbarium Database: Global Networks, and Local Collectors at the Singapore Herbarium, 1875-1941</i> Alessandro Aruta, Caterina Giovinazzo & Mariateresa Curcio (Sapienza University of Rome), <i>Adimus: an ancient heritage on digital display</i>	

17.00-18:00	Artefacts Museum Updates (with introduction from the Artefacts team)	Studio
18.30-20:00	<i>Reception / buffet in Making the Modern World Gallery</i>	Science Museum

MONDAY 14 OCTOBER

Time	Activity	Location
8:30-9:00	Registration & Tea/Coffee	Library
9:00-9:15	Welcome Introduction to the mixed conference format: CE + Artefacts	Studio
9:15-10:45	SESSION 2: THIS IS THE CONGRUENCE ENGINE	Studio
	<ol style="list-style-type: none"> 1. Introduction / Outcomes / Conclusions (Tim Boon) 2. Social Machine / CE approach (Arran Rees & Helen Graham) 3. The CE data register (Arran Rees, Anna-Maria Sichani, Felix Needham-Simpson, Kunika Kono & Jane Winters) 	
10:45-11:15	Coffee break	Library
11:15-12:00	SESSION 3: CONGRUENCE ENGINE'S ETHICAL CONSIDERATIONS Chair: Helen Graham	Studio
	<p>Julia Ankenbrand, Alex Fitzpatrick, Arran Rees (Science Museum), <i>Anti-oppressive practices in the context of the CE project</i></p> <p>Anna-Maria Sichani (School of Advanced Study, University of London), <i>Ethics & Environmental Sustainability</i></p>	
12.00-13.00	Lunch break Tours of the museum Artefacts publications: A discussion	Library & Science Museum
	Studio	Study
13.00-14.15	SESSION 4: USING DIGITAL MEDIA IN EXHIBITIONS Chair: Klaus Bernhard Staubermann	SESSION 5: COMBINING VOICES AND COLLECTIONS Chair: Geoff Belknap
	<p>Katherine Ott (NMAH), <i>Where is Home in a Digital World?</i></p> <p>Jessica Walthew, (Cooper Hewitt), <i>Revisiting Ten Years of 'Interaction Vernacular' in Collections Displays at Cooper Hewitt</i></p> <p>Frank Zwintzsch and Lukas Breitwieser (Deutsches Museum),</p>	<p>Alex Fitzpatrick (Science Museum), <i>Benefits & Challenges of Crowdsourcing Collections Data Online</i></p> <p>John Schaefer and Kiri Ross-Jones (Royal Botanical Gardens Kew and University of Cambridge), <i>AI in the Archives: Volunteer Crowdsourcing and</i></p>

	<p><i>Digital killed the Mobility Machine? Exhibiting complex interconnected mobility in times of digitalisation needs more than cars and trains</i></p> <p>Jan Yap (National Museum of Singapore), <i>From Painting to Projection: Digital Approaches to the William Farquhar Collection of Natural History Drawings</i></p>	<p><i>Handwritten Text Recognition at Kew Gardens</i></p> <p>Stefania Zardini (Science Museum) & Stef de Sabbata (University of Leicester), <i>Digital Solutions for Exploring Oral Histories</i></p>
14.15-14.45	Coffee Break	Library
	Studio	Study
14.45-16.00	<p>SESSION 6: NEW APPROACHES TO DIGITIZATION AND PRESERVATION Chair: Andrew Johnston</p>	<p>CE DEMONSTRATION SESSION 1: APPLYING AI TOOLS TO COLLECTIONS Chair: Max Long</p>
	<p>Peggy Kidwell (National Museum of American History), <i>Museum Boundaries and Digital Records – the Case of Eighteenth Century American Almanacs</i></p> <p>Martina Griesser-Stermscheg, Nika Maltar, and Almut Schilling (Vienna Museum of Science and Technology), <i>Cracking the Code: Digital Preservation Challenges in Technical Museums: Insights from The Codebreakers Project</i></p> <p>Thom Burns (Harvard, Plate Stacks Collection) and Anna von Mertens (Artist/Author), <i>Seeing Layers of Data: Recentering of the Harvard Plate Stacks</i></p> <p>Lisa Bravata (Harvard, Plate Stacks Collection), <i>StarGlass: 1.2 Petabytes of a Century of Archival Astronomical Data</i></p>	<p>James Elder (BT archives), <i>Demonstration of BT Archives' use of digital methods for generating film descriptions</i></p> <p>Nayomi Kasthuri Arachchi & Natasha Kitcher (Science Museum), <i>Talk to the Circulars: Demonstration of a Research Augmented Generation (RAG) pipeline for interrogating historic documents</i></p> <p>Nayomi Kasthuri Arachchi, Alex Butterworth, Jo Kent (Science Museum) & Andrew Richardson (Northumbria University), <i>A demonstration of the uses of graph technologies and generative AI to explore genealogical and employment patterns in social history datasets</i></p>
	Break - walk to Cinema Lumiere	
16.30-17.30	<p>KEYNOTE: RICHARD CARTER (UNIVERSITY OF YORK) <i>Extractive Pasts and Generative Futures - Reworking the Imaginaries, Ecologies, and Colonialities of AI and Heritage Collections</i> Chair: Alex Fitzpatrick</p>	Ciné Lumière, 17 Queensberry PI
17:30-18:00	<p>Heritage Research as Independent Film: Special Screening Introduced by Cal Murphy-Barton & Paul Craddock</p>	Ciné Lumière, 17 Queensberry PI

18:30-19:30	<i>Dinner in South Kensington</i> (booked restaurant, at diners' expense)	Comptoir Libanais
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TUESDAY 15 OCTOBER

Time	Activity	Location
09.00-09.30	Registration & Tea/Coffee	Library
09:30-10:30	PANEL 2: CHALLENGES AND OPPORTUNITIES OF AI-ENHANCED PHOTOGRAPHS IN EXHIBITS IN MUSEUMS—THE EXPERIENCE OF LIVING IN THE SPACE AGE GALLERY Chair: Colleen Anderson	Studio
	<i>Panellists:</i> Cathleen Lewis Ashley Hornish Michael Hulslander Andrew Meade McGee (Smithsonian Air and Space Museum)	
10:30-11:00	Coffee Break	Library
	Studio	Study
11.00-12.00	SESSION 7: INTRODUCING DIGITAL TOOLS IN THE MUSEUM Chair: Tilly Blyth	CE DEMONSTRATION SESSION 2: COMPUTER VISION TOOLS Chair: Max Long
	Jennifer Levasseur (NASM), <i>Deep Dives: Attempting to Provide More but Ultimately Meaning Less?</i> Doug Millard (Science Museum), <i>Making Sense of the Great Train Wreck: bringing the Apollo Mission Simulator to life for the Museum visitor</i> Yurika Saito (Nature and Science Museum, Tokyo University of Agriculture and Technology), <i>Conservation of Silk Reeling Machine Technology Using Digital Techniques</i>	Natasha Kitcher & Kaspar Beelen (Science Museum and School of Advanced Study, University of London), <i>Heritage Weaver: Linking Heritage Collections with Multimodal AI</i> Daniel Belteki & Kunika Kono (Science Museum & School of Advanced Study, University of London), <i>"What's this thing?": Experiments with multi-modal computer vision tools as applied to historical images</i>
12.00-13.00	Lunch Tours of the Museum	Library & Science Museum
	Studio	Study
13.00-14.15	SESSION 8: ONLINE DISPLAYS, EXHIBITIONS AND GAMES Chair: Doug Millard	SESSION 9: NEW INDUSTRIAL HISTORIES USING GEOSPATIAL METHODOLOGIES Chair: Jane Winters

	<p>Merlin Stadler & Carola Dahlke (Deutsches Museum), <i>Operation Rubicon: an immersive online exhibition</i></p> <p>Oliver Schmidt (Sauerland-Museum des Hochsauerlandkreises), <i>"Rescue Shorty!" A digital approach to audience involvement with Exhibitions and Collections</i></p> <p>Lesley Johnston (UK Antarctic Heritage Trust), <i>Virtual Access to the Antarctic Scientific Era</i></p> <p>Sian Toogood (Science Museum), <i>How Museums can use YouTube to their advantage</i></p>	<p>Daniel Belteki (Science Museum), <i>Turning Geospatial Information into Datasets</i></p> <p>Yichang Sun, Alex Butterworth and Sam Griffiths (Science Museum), <i>Using Trade-Directory Data and Space Syntax Methods to Describe the Multi-Scalar Constitution of Socio-Economic Space in Nineteenth-Century Bradford</i></p> <p>Stef de Sabbata (University of Leicester) and Alex Butterworth (Science Museum), <i>Mapping oral histories</i></p>	
	Studio	Study	
14:15-15:15	<p>SESSION 10: INNOVATIVE APPROACHES TO LINKING MUSEUM DATASETS</p> <p>Chair: Kristin Frederick-Frost</p>	<p>SESSION 11: KNOWLEDGE GRAPHS & HERITAGE DATA</p> <p>Chair: Arran Rees</p>	
	<p>Arne Langleite (The Norwegian Museum of Science and Technology), <i>100 Million Photographs – How Centralized Systems Shape the Digitization of Norwegian Cultural Heritage</i></p> <p>Caroline Djambian & Emrick Poncet (Université Grenoble Alpes), <i>From collecting theatres of memories to staging knowledge: the ITinHeritage project</i></p> <p>Ellen Charlesworth (University of Durham), <i>Using AI to understand the online museum sector</i></p>	<p>Rebekah Higgitt (NMS), Alex Butterworth & Sarah Middle (Science Museum), <i>Tools of Knowledge: launching the 'SEMSIM' database</i></p> <p>Jo Kent, Alex Butterworth & Nayomi Kasthuri Arachchi, <i>Developing and sustaining a knowledge graph of industrial Bradford, using Entity Relation Extraction, Neo4j and Arches</i></p>	
15:15-15:45	Coffee Break		Library
15.45-17.15	<p>SMG Digital Research Cluster Launch panel</p> <p><i>AI in Heritage: Friend or Foe?</i></p>		Studio
	<p>Introduction: Tim Boon (Science Museum)</p> <p>Chair: Rachel Boon (Science Museum)</p> <p>Panellists:</p> <p>James Sumner (University of Manchester), <i>Risks and challenges for generative AI in heritage: clues from past experience</i></p>		

	<p>Jane Winters (University of London, School of Advanced Study), <i>Between under- and over-promising: finding a middle way for AI in cultural heritage research and practice</i></p> <p>Ben Russell & Oliver Carpenter (Science Museum), <i>Two Knights at Pandaemonium: Curatorial responses to 'Congruence Engine'</i></p> <p>Ross Parry (University of Leicester), <i>The datafication of culture, and the culture of datafication</i></p>	
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