
The Interface(s) of a Virtual National Collection

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Abstract of the answer to the call for proposals

Towards a National Collection (TaNC) is a five-year £18.9 million investment in the UK's world-renowned museums, archives, libraries and galleries (GLAM). TaNC will allow to formulate new research questions, increase visitor numbers, and expand and diversify virtual access to UK heritage. Eight small-scale Foundation Projects – made of collaborations between Higher Education Institutions (HEIs) and Independent Research Organisations (IROs) – are laying the foundations for this future virtual national collection. This panel includes papers by the representatives of three Foundation Projects: Deep Discoveries (Lora Angelova, Jo Briggs); Locating a National Collection (Gethin Rees), and Engaging Crowds (Samantha Blickhan). Each project is developing a proof of concept user interface that aims at engaging different audiences (from experts to casual users) at different levels of agency (from participatory methods to serendipitous discovery) – setting an example for organisations dealing with similar digital collections and technologies. We are also submitting the interfaces demos in the poster/ demo section.

Deep Discoveries joins HEI-based computer vision experts, GLAM professionals, and UX researchers to explore the opportunities afforded by AI-enabled visual similarity recognition technologies for cross-collection image searching. A central aim of the project is the delivery of a prototype to demonstrate the ‘research’ and ‘discovery’ potentials of a novel technology to multiple types of users. The complex goal of bridging diverse user searching tasks was further complicated by the distinct drivers of our transdisciplinary team. A critical intervention occurred at the interface design stage, with the integration of a Design Research team and the development of a shared vision and a joint vocabulary. The interface design served to cultivate a balance between advancements in computer vision technology and existing end-user knowledge, skills and adaptability. Our teams came to view the interface as a boundary object, a tool that enabled, if not an agreement on the research approach, then certainly a shared understanding and way forward. We propose that the interface can serve as a site for collaboration across the TaNC programme, mediating the distinctive drivers and professional demands of all stakeholders, from the complex needs of specialist researchers and requirements of heritage organisations, to the discovery-driven demands of general audiences. Bernard Ogden, the project's web developer, will also attend and take questions on the interface prototype.

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Locating a National Collection - LaNC aims to help cultural heritage organisations to use location data to connect collections and engage audiences. Location-based interfaces such as web maps offer opportunities to open up collections to new audiences and uses. Place metadata can form the basis of engaging stories and tangible links between overlooked groups and local pasts that underscore notions of community empowerment. LaNC seeks to identify how the design of interfaces can be tailored to meet the needs of diverse users thus improving uptake and broadening the appeal of digital cultural heritage. To this end we gathered structured feedback from two groups: cultural heritage professionals and the public. Interviews with cultural heritage professionals helped us understand motivation and priorities in the sector. Audience research included surveys and focus groups with representative samples of the UK population that offered insights into attitudes and behaviour alongside opportunities to test interface ideas. The research has demonstrated how values, such as local identity, alongside motivations such as curiosity around heritage visits offer hooks into cultural heritage collections. These findings will inform the development of LaNC's map-based prototype, providing insights into how geospatial data structures and interface design can help institutions leverage serendipitous discovery and curiosity-driven exploration of their collections.

Engaging Crowds investigates the practices around citizen research projects, particularly how volunteer audiences engage with these projects online. It explores practices around creation, use, and reuse of heritage data, as well as the potential opportunities for each. A major component of the project is the creation of a bespoke 'Indexing' interface for the Zooniverse crowdsourcing platform that will be available to future project creators as part of the Project Builder, a free browser-based tool that allows anyone to create their own crowdsourcing project for free. The indexing tool is intended to allow volunteers greater agency around how they want to participate in a project. Volunteers can choose to work on subject matter they are already interested in, or discover new and unfamiliar subjects. Additionally, *Engaging Crowds* offers support to heritage institutions hoping to explore opportunities for citizen research with their own materials via workshops and, eventually, a report recommending best practices for supporting online public engagement with heritage collections throughout the lifecycle of a crowdsourcing project-from conception to design, data collection to sharing results.

Keywords: serendipitous discovery, visual search, crowdsourcing, geospatial data structure, GLAM sector, digital cultural heritage, computer vision