

# Digital Knowledge Presentation within the National Gallery, London - Abstract

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## Abstract

This talk will explore the development of semantic knowledge representations at the National Gallery, from the development of bespoke triple stores in the mid 2000s to the creation of open FAIR heritage science datasets in current research projects, like SSHOC (<https://sshopencloud.eu/>). Providing examples of LOD systems, the use of semantic standards, such the CIDOC-CRM, in research projects, example semantic mappings for heritage science data, and how the use of Persistent Identifiers and additional standards like IIIF (<https://iiif.io>) are enabling the National Gallery to represent its knowledge as reusable and referenceable data. The talk will also present a new online modelling tool (<https://research.ng-london.org.uk/modelling/>) which has allowed remote researchers to collaboratively develop example semantic mapping models that can be easily shared, edited, and developed in the future.

## Short Bio

National Gallery, London, Principal Scientist, with expertise in preventive conservation, colour science, conservation documentation, technical examination of paintings, generating/sharing digital images, image processing, web development, data management and integration systems development, database development, open-linked data, RDF triple stores and the semantic web. His main research interests include digital documentation and museum lighting, specifically investigating how the introduction of new types of lights (e.g. LEDs), affects how we compare and select appropriate lighting for museums. He is responsible for several of the National Gallery's collaborative national and international external research projects including being responsible for a task examining the "Interoperability of instrumentation and digital documentation" in the IPERION-HS (H2020) project, managing the National Gallery's involvement in the SSHOC (H2020) project (<https://sshopencloud.eu/>) and is the principal investigator on an AHRC funded project developing practical applications for IIIF (<https://iiif.io>).