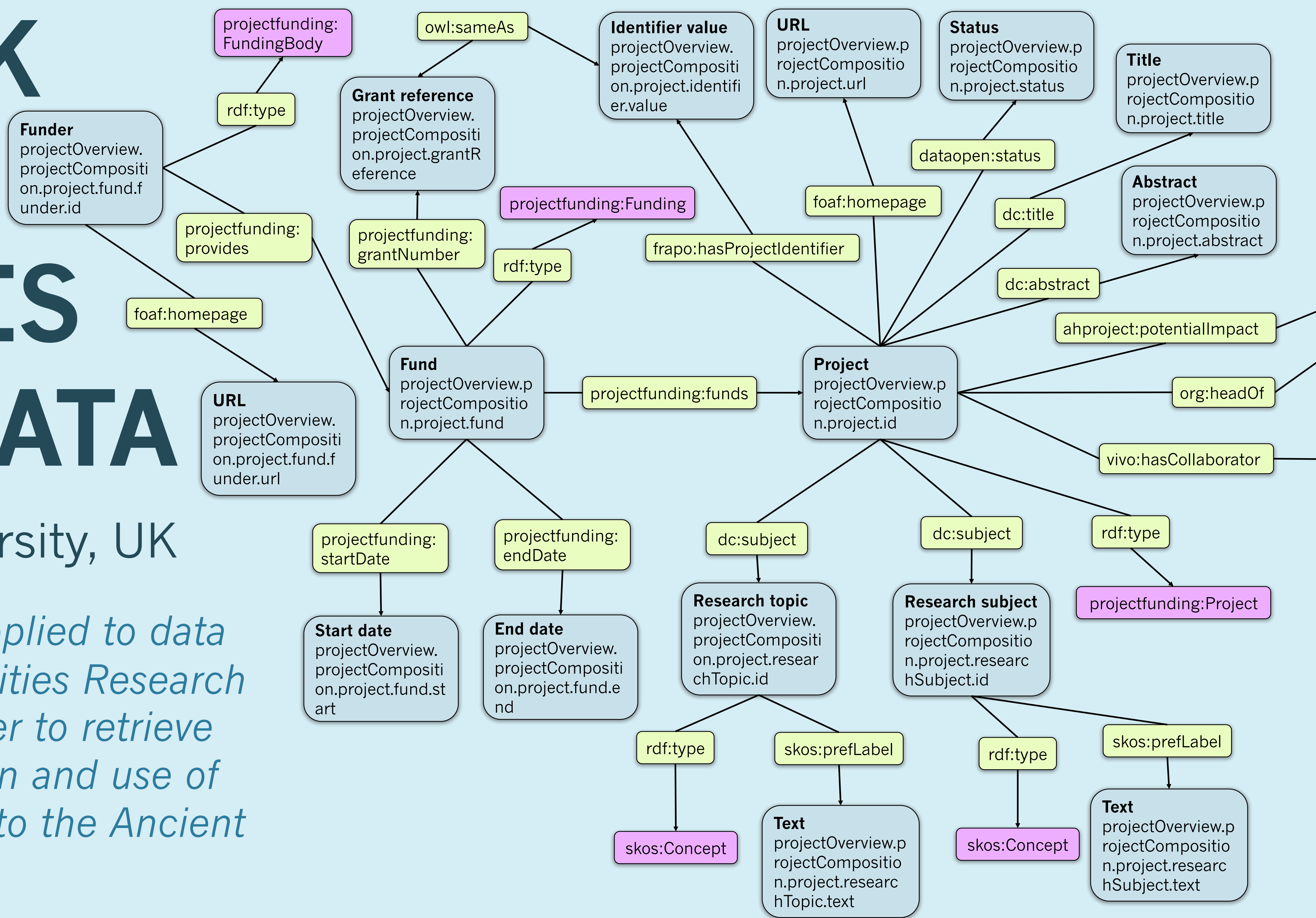# LINKING UK ARTS AND HUMANITIES PROJECT DATA

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Linked Data techniques were applied to data about the UK's Arts and Humanities Research Council (AHRC) projects, in order to retrieve information about the production and use of digital data by projects relating to the Ancient World.

Field map diagram nodes and labels:

- projectfunding:FundingBody
- owl:sameAs
- Identifier value — projectOverview.projectComposition.project.identifier.value
- URL — projectOverview.projectComposition.project.url
- Status — projectOverview.projectComposition.project.status
- Title — projectOverview.projectComposition.project.title
- rdf:type
- Grant reference — projectOverview.projectComposition.project.grantReference
- Funder — projectOverview.projectComposition.project.funder.id
- dataopen:status
- Abstract — projectOverview.projectComposition.project.abstract
- projectfunding:provides
- projectfunding:grantNumber
- projectfunding:Funding
- foaf:homepage
- dc:title
- rdf:type
- frapo:hasProjectIdentifier
- dc:abstract
- foaf:homepage
- ahproject:potentialImpact
- URL — projectOverview.projectComposition.project.fund.funder.url
- Fund — projectOverview.projectComposition.project.fund
- projectfunding:funds
- Project — projectOverview.projectComposition.project.id
- org:headOf
- vivo:hasCollaborator
- projectfunding:startDate
- projectfunding:endDate
- dc:subject
- dc:subject
- rdf:type
- projectfunding:Project
- Start date — projectOverview.projectComposition.project.fund.start
- End date — projectOverview.projectComposition.project.fund.end
- Research topic — projectOverview.projectComposition.project.researchTopic.id
- Research subject — projectOverview.projectComposition.project.researchSubject.id
- rdf:type
- skos:prefLabel
- rdf:type
- skos:prefLabel
- skos:Concept
- Text — projectOverview.projectComposition.project.researchTopic.text
- skos:Concept
- Text — projectOverview.projectComposition.project.researchSubject.text

EXTRACTION
Data relating to 5,349 research projects funded by the AHRC since 2006 was exported from the Research Councils UK's (RCUK) Gateway to Research (**gtr.rcuk.ac.uk**) and the field names were extracted.

CONVERSION
Using a Python script, these descriptions were converted to Resource Description Framework (RDF) triples, where a subject field and an object field are linked by a predicate, which describes the relationship between them.

DESCRIPTION
These fields, and the relationships between them, were then described using properties from existing ontologies, including the University of Oxford's Project Funding vocabulary, the Funding, Research Administration and Projects Ontology (FRAPO), and the W3C's Organization Ontology. A new ontology 'ahproject' was created to contain those terms with no existing equivalent. Part of the resulting field map is shown above.
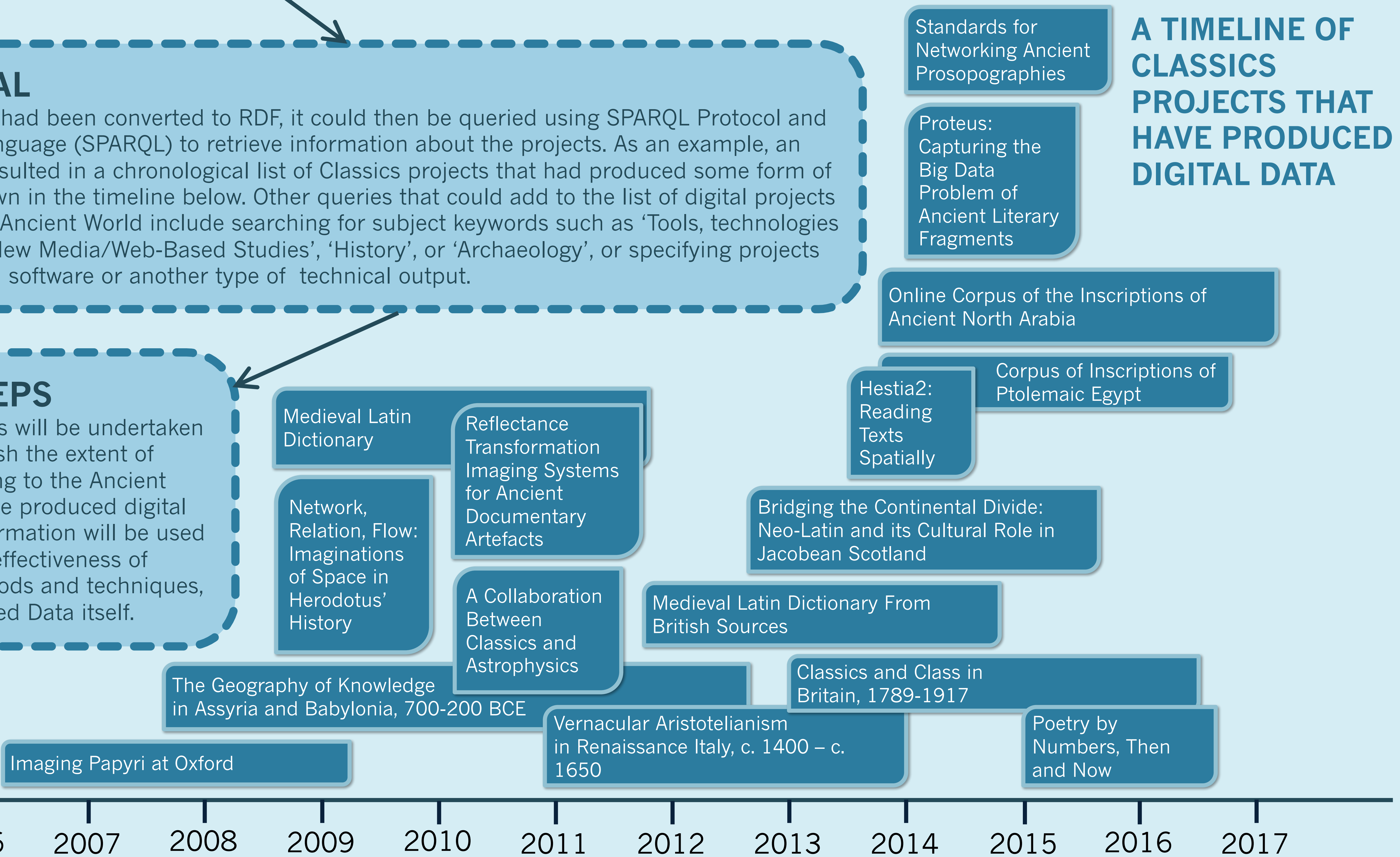
RETRIEVAL
Once the data had been converted to RDF, it could then be queried using SPARQL Protocol and RDF Query Language (SPARQL) to retrieve information about the projects. As an example, an initial query resulted in a chronological list of Classics projects that had produced some form of database, shown in the timeline below. Other queries that could add to the list of digital projects relating to the Ancient World include searching for subject keywords such as 'Tools, technologies & methods', 'New Media/Web-Based Studies', 'History', or 'Archaeology', or specifying projects that developed software or another type of technical output.

NEXT STEPS
Further queries will be undertaken to fully establish the extent of projects relating to the Ancient World that have produced digital data. This information will be used to assess the effectiveness of different methods and techniques, including Linked Data itself.

A TIMELINE OF CLASSICS PROJECTS THAT HAVE PRODUCED DIGITAL DATA

Timeline project labels:

- Standards for Networking Ancient Prosopographies
- Proteus: Capturing the Big Data Problem of Ancient Literary Fragments
- Online Corpus of the Inscriptions of Ancient North Arabia
- Corpus of Inscriptions of Ptolemaic Egypt
- Hestia2: Reading Texts Spatially
- Medieval Latin Dictionary
- Reflectance Transformation Imaging Systems for Ancient Documentary Artefacts
- Network, Relation, Flow: Imaginations of Space in Herodotus' History
- Bridging the Continental Divide: Neo-Latin and its Cultural Role in Jacobean Scotland
- A Collaboration Between Classics and Astrophysics
- Medieval Latin Dictionary From British Sources
- The Geography of Knowledge in Assyria and Babylonia, 700-200 BCE
- Classics and Class in Britain, 1789-1917
- Vernacular Aristotelianism in Renaissance Italy, c. 1400 – c. 1650
- Poetry by Numbers, Then and Now
- Imaging Papyri at Oxford

Timeline axis: 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

A timeline of AHRC projects with the main subject keyword 'Classics' that have identified themselves as having a 'research database and model output', funded since 2006

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