

4C—Collaboration to Clarify the Costs of Curation

This short document is intended to provide a detailed introduction to the ‘4C’ project, recently funded by the European Commission. It has been prepared because the project seeks to foster a culture of participation among stakeholders. This briefing is intended for those with an interest in the project who want more detail than a simple press release but who don’t have time to read the entire project description. The abbreviation ‘4C’ is used in place of the long name—‘Collaboration to Clarify the Costs of Curation’. The title of the project is a succinct summary of its purpose.

Why?

There is a sizeable canon of research into cost modelling for digital curation. This research has tended to emphasize the cost and complexity of digital curation and preservation, but the research is in many ways preliminary and there has been little uptake of the tools and methods that have been developed—for example, tools to manage and estimate costs have not been integrated into other digital curation processes or tools. The question is why? That’s where the 4C project comes in.

The 4C project seeks to help organisations across Europe to better understand the costs and benefits that accrue from digital curation and preservation. Ultimately, the project’s results will put organisations in a position to invest more effectively in digital curation and preservation activities. The resulting project will help organisations across Europe to invest more effectively in digital curation and preservation activities by helping them to understand the costs and the benefits that accrue. Existing research on cost modelling provides the starting point for the project. 4C reminds us that the point of this investment is to realise a benefit, so the research must also encompass related concepts such as ‘risk’, ‘value’, ‘quality’ and ‘sustainability’. Organizations that understand this will be more able to control and manage their digital assets over time, but they may also be able to create new cost-effective solutions and services for others and they may be able to find new use cases to exploit the data they manage.

The main objective of the 4C project is, therefore, to ensure that where existing work is relevant, that stakeholders realise and understand how to employ those resources. An additional aim of the work is to examine more closely how they might be made more fit-for-purpose, relevant and useable by a wide range of organizations operating at different scales in both the public and the private sector.

These objectives will be achieved by a coordinated programme of outreach and engagement that will identify existing and emerging research and analyse user requirements. This will inform an assessment of where there are gaps in the current provision of tools, frameworks and models. The project will support stakeholders to better understand and articulate their requirements and will clarify some of the complexity of the relationships between cost and other factors. The outputs of this project will include various stakeholder engagement and dissemination events (focus groups, workshops, and a conference), a series of reports, the creation of models and specifications, and the establishment of an international Curation Costs Exchange framework. All of this activity will enable the definition of a research and development agenda and a business engagement strategy which will be delivered in the form of a roadmap.

4C is classified by the European Commission as a ‘Coordination and Support Action’. As such it’s different from many of the large collaborative initiatives which have come before. ‘Coordination and Support

Actions' are not funded to undertake primary research, but to assist the coordination and networking of existing projects, programmes and policies. This has two implications for 4C. Firstly it is a relatively small and relatively short-lived project that makes the most of existing research and adds to it, allowing partners to share and compare know-how rather than inventing new ways to consider the problem. Secondly, 4C is by its nature an outward-looking project that seeks to engage a large and diverse number of stakeholders. Consultation and participation will be a repeated theme.

Who?

The 4C project came into existence in February 2012 when an informal consortium was formed under the leadership of Jisc (UK) with the intention of submitting a proposal for funding to the European Commission for a 'Coordination and Support Action' on the broad topic of modelling the costs of digital preservation and curation. Initial discussions led to the creation of an outline proposal for a 'Collaboration to Clarify the Costs of Curation' which was submitted to the European Commission in April and approved late in 2012.

The consortium undertaking this project includes organizations with extensive domain expertise and experience with cost modelling issues. It includes national libraries and archives, membership organizations, service providers, research departments and SME's. It is coordinated by a national funding organization that specializes in supporting the innovative use of ICT methods and technologies.

Danish National Archives	DANS- Data Archiving and Network Service (KNAW/NWO) Netherlands
Deutsche Nationalbibliothek, Germany, for the network of expertise in digital preservation 'nестor'	Digital Curation Centre, University of Edinburgh (UK)
Digital Preservation Coalition (UK)  	Humanities Advanced Technology and Information Institute, University of Glasgow (UK)  
Institute for Information Systems and Computing Research, Portugal (INESC-ID)	Jisc (UK)*
Keep Solutions, Portugal	National Library of Estonia
Royal Library of Denmark (Denmark)	Secure Business Austria
UK Data Archive, University of Essex (UK)	

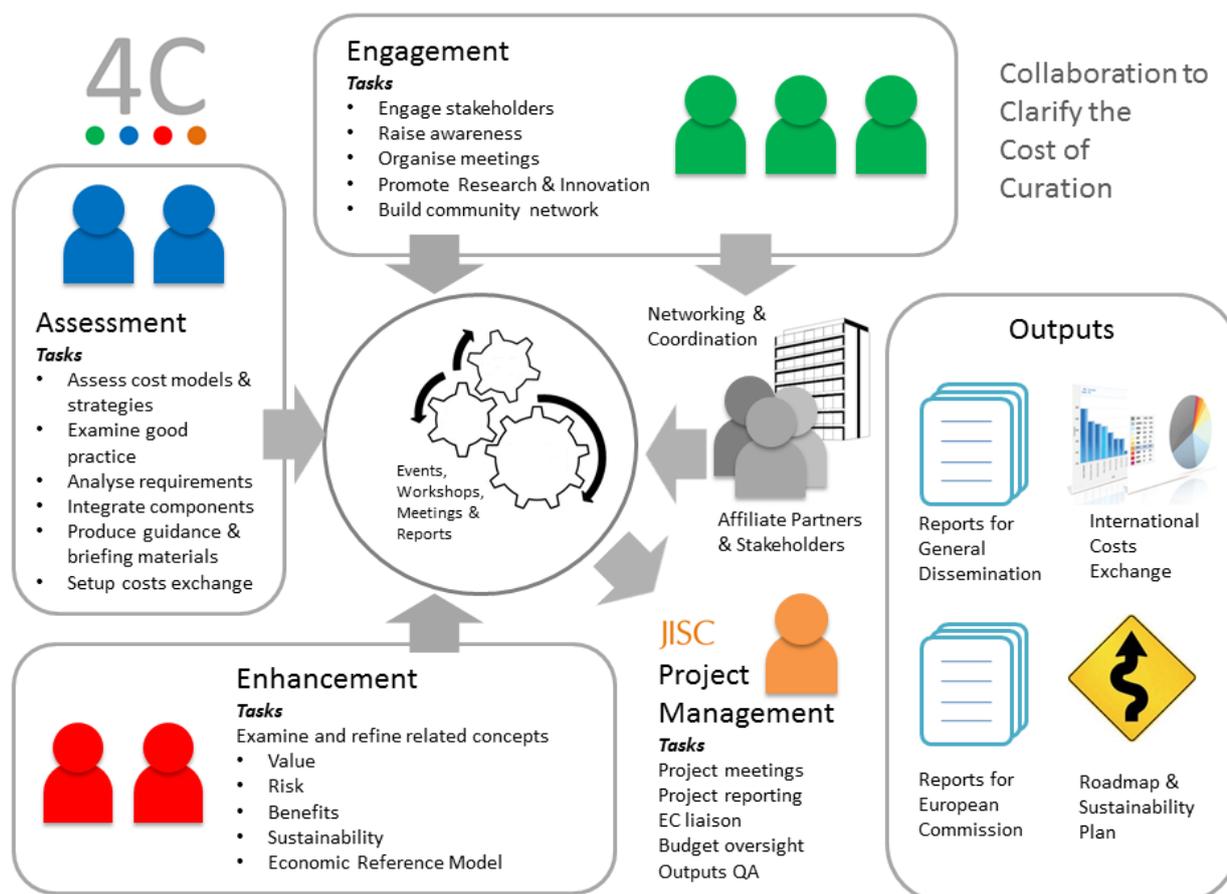
What?

Major outputs from the project will include:

- An analysis of state of the art in cost modelling and an analysis of needs
- An online curation costs exchange tool, trialled before launch
- A Roadmap of analysis and recommendations for future action and investment strategies for the promotion of affordable digital curation solutions and services
- A major international conference
- 2 workshops to disseminate findings from the project
- 4 invitation focus groups to validate and review outputs

How?

The project has five 'work packages' comprising expert groups collaborating on specific tasks and questions.



Engagement: 4C is designed as an open and social project and the key to its success will be its engagement with a wide range of stakeholders. We will want to speak with staff from memory institutions, data intensive research groups, and all kinds of industry and commerce. We will identify, get involved and build partnerships with individuals, groups and institutions that are active or interested in the issue of curation costs, and foster a better understanding of the issue amongst the community.

4C will provide channels and virtual and physical forums for interaction between the project team and our stakeholders. The impact and success of these interactions will be monitored through the number of those indicating their willingness to participate and from evaluation and feedback from those participants. We will systematically survey and assess all relevant work in the area of digital curation costs. As the project progresses, we will package and disseminate the outputs of the project.

Overall indicators of success for 4C engagement activities will include: the type and frequency of invitations the project receives to participate in external events; the number of people and organisations who step forward to become active stakeholders and affiliate partners; the level of demand that becomes apparent for 4C project outputs; and the nature of advocacy that already engaged participants are prepared to do on behalf of the 4C project to further connect the project beyond its established stakeholder community.

This work package is led by the Deutsche Nationalbibliothek on behalf of nestor, the German network of expertise in digital preservation.

Assessment: 4C will establish the most effective current methods for private and public sector organizations to estimate and compare the cost of digital curation, and to identify the most beneficial paths for future development of solutions and services. This will enable stakeholders to more effectively and comprehensively assess the investment of resources that may be required to sustain their digital preservation activities; and allow comparisons of existing and future tools and models with the knowledge that a broad range of criteria: for example price, savings, quality, value, risks, benefits, sustainability, etc., are implicit to the comparison.

In addition we will assess and describe the work that has already been done in the area of curation cost modelling (to understand whether the current needs and requirements of stakeholders can be met with existing solutions and services); and we will create a template for the submission of requirements, actions and data into a shared knowledge-base that will help the broader community to better understand the economics of digital curation. To achieve this we will promote a cost specific terminology that will enhance standardisation and communication.

Critical to the success of this work will be its capability of routing inputs from the user community, the other work packages and the needs and gap analysis report into a generic specification that can be used in developing a roadmap. This roadmap will be useful for the user community that contribute to it, and will also inform the curation costs exchange which will also be a useful tool delivered by the project. The roadmap and the exchange will be useful to future research projects.

This work package is led by the Danish National Archives.

Enhancement: 4C will ensure that comprehensive consideration is given to all indirect factors that might still be economic determinants of digital curation, initially by collating and prioritising assessment of those determinants and expanding on partners' recent experience in audit and certification with a focus on trust and quality. These will inform initial work on an Economic Sustainability Reference Model which will be iteratively updated in response to further Assessment and Engagement work and to a subsequent evaluation of risk, benefit, impact and value as determinants.

This assessment will inform tasks which support the move from evaluation to guidance on implementation with the development of an Economic Sustainability Reference Model and potential business models. As well as positive responses during engagement activities these deliverables may be judged successful if their structure and content provide an effective framework to ensure Roadmap activities (WP5) take account of the subtleties of the identified indirect factors.

Indicators of success will be community agreement (through outreach and specific Engagement WP activities) that the stand-alone deliverables are fit for purpose (re-use and ongoing development) and that the impact on other deliverables is positively received.

This work package is led by the National Library of Estonia.

Roadmap: 4C will provide a roadmap to arrive at coherent and evidence-based recommendations for future action and strategy in relation to the economic aspects of digital curation. The focus will be on measures that will assist diverse types of organizations to better understand and take control of the cost of managing digital assets over varied timescales, including the provision of cost-effective solutions and services to others. This roadmap report will synthesize and exploit the valuable intelligence that emerges

from the other work packages and will also ensure that the content and conclusions are complementary and non-duplicative of work being taken forward by others.

The output will be a report and an indicator of its success will be the level of input and validation it receives from the broad community as it is being drafted and finalised. An internal progress indicator for the roadmap will be the amount of early effort that starts to logically accrue to building an evidence-base to underpin the final report. A substantial amount of effort is dedicated to the Roadmap and early buy-in for its content, aims and objectives is crucial.

This work package is led by Jisc.

Project Management: The project management work package will focus on ensuring that the agreed project outputs are delivered in a timely and coordinated manner.

This work package is led by Jisc.

When?

The project lasts for 24 months. It began on the 1st of February 2013 and is due for completion on 31st January 2015. A number of key dates for the diary include:

- February 2013, Official Launch, web presence and twitter established
- March 2013, Public Launch
- September 2013, Focus Group
- September 2013, Specialist Workshop
- December 2013, Focus Group
- January 2014, Curation Costs Exchange prototype released
- March 2014, Focus Group
- June 2014, Focus Group
- June 2014, Specialist Workshop
- June 2014, Public Consultation on Draft Roadmap
- October 2014, 4C Conference
- January 2015, Curation Costs Exchange launched
- January 2015, Roadmap published

Want to get involved or find out more?

We want to hear from you! Just now you can contact us in the following ways:

- Online: 4cproject.eu
- Twitter: @4cproject #4ceu
- Email: info@dpconline.org