

Curation Cost Exchange platform

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ABSTRACT

This demonstration proposal describes the Curation Cost Exchange platform (CCEx), a web application that allows organizations to introduce, analyse, share and compare the cost of their digital curation activities. It is also a central hub for digital curation costing related information; and is a social platform that brings together organizations with the same problems and allows sharing of experiences, good practices and know-how. The CCEx is an output of the 4C Project (a Collaboration Clarify the Costs of Curation) and the relationship of the CCEx to other 4C Project outputs will also be briefly described.

General Terms

Communities, strategic environment, digital preservation marketplace, case studies and best practice.

Keywords

Curation, Cost, Cost analysis, Economy, Curation activities, Cost analysis, Cost comparison, social, Cost information, Cost model.

1. INTRODUCTION

A lot of excellent and detailed work has been carried out over the last decade to develop and refine cost models for digital curation and it is now possible to make an assessment of those methods and to design a new approach for tackling this very complex problem.

Improved clarity about the costs of digital curation supports tactical and strategic decision-making within an organisation and will improve the efficiency of digital asset management. The current problem is that there is no authoritative cost model that can be generically employed and there is little by way of comparative data that organisations can benchmark themselves against. This results in individualistic methods and no clear path to understanding what the typical or acceptable costs are for digital curation activities. By enabling organizations to share and compare the costs of curation activities with each other, benchmark costs for various curation activities can emerge and organizations can better assess how they should spend their budgets and plan their investments. Knowing what similar organizations have spent on curation activities (and why they have prioritised that spend) is a valuable insight.

Organizations organize their costs in very particular ways and this makes it hard to directly compare costs. To solve this, the 4C project devised a framework to map costs into a set of

activities, capital procurements and labour roles, enabling organizations to compare costs in these categories.

This framework is used within a web application, the Curation Cost Exchange Platform, which enables an organization to submit their costs online and then compare them with other organizations.

2. Framework of comparable costs

The framework defines a set of cost categories into which the curation costs of an organization can be mapped, allowing different organizations to directly compare within those categories.

The primary mapping is done to an OAIS [1] based set of activities: production, ingest, archival storage and access. This mapping allows organizations with activity based accounting to easily map their costs into a set of categories that plainly divide curation concepts.

A secondary mapping is based on financial accounting, dividing costs into capital procurements: hardware, software, external or third party services; into labour roles: producer, IT-developer, support/operations, records manager and manager; and into overhead. This secondary mapping is closer to financial accounting which is further away from the curation concepts but is closer to the usual accounting practice in organizations.

3. Curation Cost Exchange platform

The Curation Cost Exchange platform (CCEx) is a web application that allows users to submit information about the curation costs in their organizations, map into the categories defined in the framework, and analyse the resulting self-assessment, group and peer-to-peer comparison.

3.1 Submission template

A web based submission template allows users to define a profile of their organization and its collections of assets, describing the characteristics that might affect costs. This information enables matches with similar organizations against which the cost comparison is more appropriate.

The web submission form then requires the input of a list of cost units, which refer to the costs on the organizations own structure. Each cost unit can be mapped to the concepts introduced on the framework of comparable costs by using percentage ratios. The mapping is validated so no overlaps exist on cost mapping.

Finally, the costs of each category are harmonized per data volume, providing costs per Gigabyte. These relative costs allow direct numeric comparisons of costs between organizations on the categories defined by the framework of comparable costs.

The user can now analyse the result as their own self-assessment of costs, or compare their costs with other organizations, either as a group or peer-to-peer.

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3.2 Self-assessment

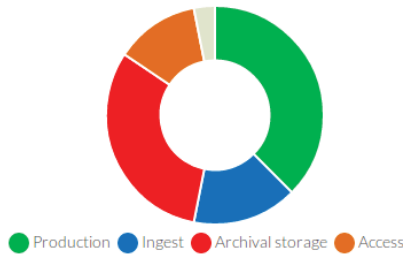


Figure 1. Example comparison of the budget spent on different curation activities within an organization.

The analysis of organizational costs mapped into the framework categories allows a level of self-assessment of how the budget is being spent. The web application shows the comparison of the mapping into each of the categories, for both activity and financial accounting. The result, as shown in Figure 1, is a doughnut chart that compares the categories by cost.

3.3 Group comparison

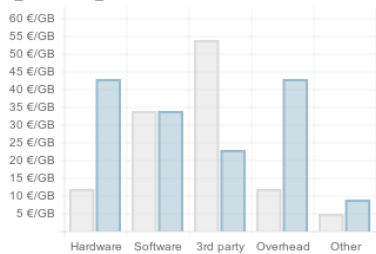


Figure 2. Example comparison of budget spent in capital procurements with the average of all other organizations.

The web application allows comparison of the costs, mapped into the framework categories, with the average of all (or a subset of) organizations that have also submitted costs into the platform¹. Figure 2 shows an example of the comparison of an organization's costs mapped into capital procurements with all other organizations.

Different types of organizations might have costs that are not comparable with each other, like comparing costs of national libraries with small or medium enterprises, or comparing costs of organizations that have mainly audio-visual material with others that only have text documents. This and other cost determinants are used to allow comparison filtering, ensuring that the organization costs are compared against similar ones, which provides a more valuable and trusted cost reference.

The statistical analysis of the submitted costs and the organization and collection characteristics allows the definition on new cost determinants and improvement of the filters that allow valuable group comparisons.

3.4 Peer-to-peer comparison

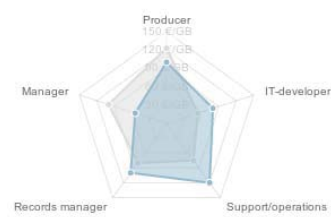


Figure 3. Example comparison of budget spent in different labour roles between two organizations.

The web application also allows peer-to-peer comparison between organizations with similar characteristics, to find out discrepancies. Figure 3 shows an example comparison of the costs mapped into labour roles between two organizations. This comparison is only possible if at least one of the organizations allows peer-to-peer comparison, although it can maintain anonymity.

A communication channel between the two organizations can be requested for both organizations to get in contact and share experiences and best practices.

4. Conclusion

The Curation Costs Exchange is one of the core deliverables of the 4C Project and is an ambitious attempt to try and tackle a self-perpetuating problem. In the past, organisations wishing to understand the costs of curation have discovered that cost models designed by others are difficult to use and that there is very little comparative data that is publicly available to benchmark activity against. This has forced them to devise their own calculation methods and has not incentivised them to share their costs data with others. The point of the CCEX and the 4C work more generally is to try and harmonise practice and encourage data sharing.

One of the 4C Project principles is to be 'open and social' and it is this collaborative approach that we believe will ultimately help the community to get a better grasp of the costs of curation. We will also be drawing up a Roadmap and an action agenda for post-project activity that will further define and support the need for future collaborative action and will also set out a sustainability path for the CCEX and other critical 4C outputs.

5. ACKNOWLEDGMENTS

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6. REFERENCES

- [1] Consultative Committee for Space Data Systems. Reference Model for an Open Archival Information System (OAIS). CCSDS 650.0-B-1. Washington, DC, 2002.

¹ Only organizations which have agreed to share costs are included in the cost comparison.