

The DigCurV Curriculum Framework:

Structure, Context and Approach

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Abstract—This paper describes the development of the initial curriculum framework, focusing on the method and theory underpinning the content and structure within the context of the project.

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I. THE CURRICULUM FRAMEWORK

The DigCurV Curriculum Framework draws on knowledge, expertise and research developed within DigCurV and related initiatives in order to synthesise a matrix of core digital curation skills and competences and, where appropriate, pathways of skills progression between one type of professional role and another. To this end, the Framework comprises three interrelated parts:

- a core Curriculum Framework model, which aims to provide in a cogent, relevant and approachable manner the constituents and interactions of different layers involved in digital curation training;
- three ‘lenses’, or views, one each for three broad types of professional role: Practitioner; Manager and Executive;
- a technical specification in the form of the current report, which outlines the groundwork for the Framework, defines the Framework’s terminology and identifies the interactions between the Framework and lenses.

II. OVERVIEW

The DigCurV Curriculum Framework aims to reflect a detailed yet coherent approach to curriculum design and evaluation, whilst remaining useable to those with or without specialist knowledge of curriculum development.

For clarity and in order to supplement understanding of the development process, a short list of definitions of terminology is provided here alongside a concept model (Figure 1) and a concept map (Figure 2). Whilst the list of

definitions may be useful to all users of the Curriculum Framework, the concept model and map are reproduced here to aid understanding of the development process and the relationship between concepts involved in the Framework development and need only be referred to by users where this is of interest.

At the core of our Framework lies the recognition that digital curation is a complex profession. For successful professional performance, staff must demonstrate domain-specific and technical competences, generic professional and project skills, and personal qualities in a blend appropriate to their particular professional context. We do not, however, expect an individual working within cultural heritage digital curation to possess every skill, ability or piece of knowledge enumerated within the Framework. Rather, the Framework is an *aspirational* model, providing a range of competences and qualities to which individual professionals can aspire in their pursuit of professional excellence. To address the full scope of digital curation activities, and to provide the necessary flexibility for relevance across diverse professional and institutional contexts, the DigCurV Curriculum Framework encompasses a wide range of skills. These skills are expressed as descriptors and arranged into a hierarchy of quadrants and subcategories in order that users may either examine the full scope of digital curation activities, or drill down into the skills associated with specific areas of interest.

To aid navigation across this range of skills, each individual descriptor in the DigCurV Curriculum Framework is assigned a unique alphanumeric identifier. These, however, are not reproduced in individual lenses. The lenses are intended to be a representation of the content of the framework at the highest possible level meaningful for a particular audience; the skill identifier code would add visual clutter and would not add to meaning in this context. The identifiers do, however, enhance usability in the overall framework by providing an additional means of identifying specific descriptors in the larger overall set of information.

III. DEFINITIONS

Competence: the ability to do what is required [1].

Designated community: an identified group of potential consumers who should be able to understand a particular set of information. The designated community of each institution may be composed of multiple user communities.

Domain: the specific professional context of a cultural heritage institution or a subject area within arts and humanities disciplines.

Domain expertise: knowledge, experience and competence that have been acquired through a consistent track record of successful projects accomplished in various domain areas.

Knowledge: the body of facts, principles, theories and practices that is related to a field of work or study. This is identified in the Curriculum Framework as ‘understanding’.

Longitudinal Evaluation: reiterative review over time, resulting in ongoing improvement.

Skills: cognitive competences (involving the use of logical, intuitive and creative thinking) or practical competences (involving manual dexterity and the use of methods, materials, tools and instruments. These are identified in the Curriculum Framework as ‘abilities’.

IV. CONCEPT MODEL

In order to facilitate the understanding of the framework and the relationships between layers, a generic high-level concept model has been developed (see Figure 1). Each layer of the model is described in more detail below. For definitions and disambiguation of terminology, see section III above, ‘Definitions’.

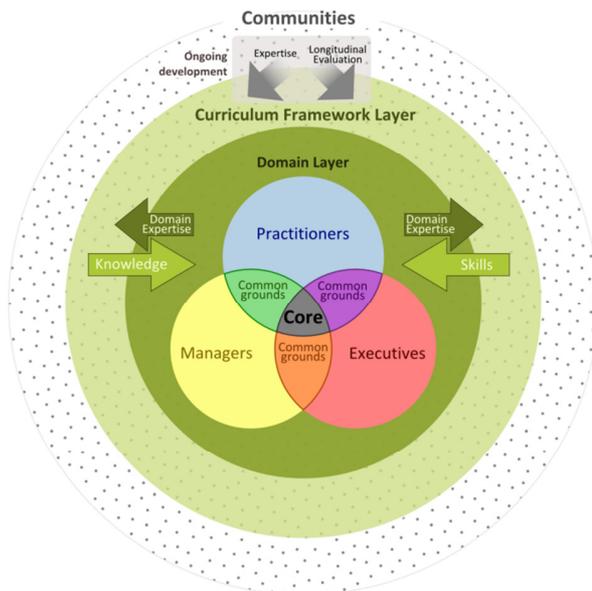
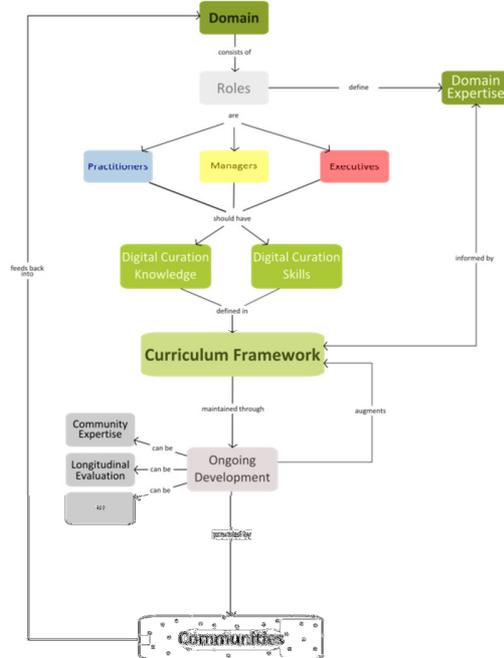


Figure 1: Concept model of the DigCurV Curriculum Framework

At the heart of the Curriculum Framework is a common set of descriptors, from which can be selected those specific to three distinct roles represented by the Curriculum

Framework lenses: Practitioner, Manager and Executive. In this instance, these roles are viewed as comprising the cultural heritage domain identified within the remit of DigCurV, specifically libraries, museums, galleries, archives and associated departments of higher education institutions. A domain can be an institution (e.g. the British Library) or a subject area within the Humanities and Information Sciences relevant to the cultural heritage sector. In this sense, the domain layer encapsulates an instantiation of a curriculum within the context of the specific domain. The areas of convergence between the lenses form common grounds. Further work could usefully define a set of core knowledge and skill elements that should be shared across all three lenses. The areas of convergence are described and connected on the page of the DigCurV website entitled, ‘Comparing Skill Requirements across Executives, Managers, and Practitioners’ [2]

Figure 2: Alternative concept map



The Curriculum Framework Layer: This layer represents the Curriculum Framework as presented in its current form in this document and any future iterations.

Interactions between Domain and Curriculum Framework Layers: Each lens should portray its ability to participate in digital curation curriculum activities through knowledge and skills components. These components form the core of the Curriculum Framework and feed into the generation of a domain curriculum.

In parallel, the roles within the domain lenses possess knowledge, experience and competences that have been acquired through continuing and consistent accomplishments within a domain. This domain expertise informs the Curriculum Framework, providing input in the

necessary knowledge and skills that a digital curation curriculum should include to be relevant to contemporary professional practice. This generates a corpus of knowledge within the Framework. Through the Framework's use, this knowledge is fed back into the domain through the curricula that are created.

Communities: Communities represent the extrapolation of the Curriculum Framework from the organisational/institutional layer (domain) to the collective/social layer. A digital curation curriculum required for the purposes of one organisation/institution in a domain becomes part of a wider network that comprises curricula from a range of organisations and domains. In addition to eliciting Framework content from communities, the collective memory and derivation of expertise from multiple/different uses of the Framework informs the ongoing development of the Framework. In the long term, the Curriculum Framework may combine a variety of sub-frameworks (hence pluralised) each satisfying the requirements of specific domains and/or uses.

Interactions between Curriculum Framework Layer and Communities:

By definition, the Curriculum Framework cannot be static, neither as a concept nor as a tool. Digital curation is a dynamic field, its methods and techniques changing as we gather more knowledge and experience. We therefore postulate that the framework requires ongoing development in order to be creditable, usable and always relevant. This ongoing development is a result of a variety of methods, including – but not limited to – longitudinal evaluation and appraisal and exposure to community expertise.

V. CURRICULUM FRAMEWORK: LENSES

DigCurV created three views or 'lenses' onto the overall Curriculum Framework. The skills and competences specified in each lens were initially based on the findings of the RIN Information Literacy Taxonomy [3] built by RIN as an enhancement to the Vitae Researcher Development Framework [4].

These three lenses were developed in response to the findings of the DPOE initiative's work on classification of audiences for training [5]. DPOE found that if cultural heritage institution staff with digital curation responsibilities are divided, based on their role, into one of three broad staff groups, training methods which are more appropriate for each group can then be applied. Following this research, DigCurV developed one lens for each of these groups to maximise the accessibility of the overall Framework to each group.

The role of the lenses is to provide fine-grained information on the specific sets of key knowledge, skills and competences that are necessary for each of the target audiences to engage in successful digital curation practice. This provides a more closely-tailored model for the user to employ when attempting to establish, conduct and/or assess

successful digital curation curricula in their own particular context. These tailored skillsets are presented in a clear and accessible visualisation for each lens, which is intended to serve as an effective resource for curriculum development or evaluation and can be worked with in printed or digital form. Each lens binds together elements from the previous work with the RIN taxonomy, the results of research conducted by DigCurV survey work and the influences of the other relevant models listed above.

The lenses consider how practical, managerial and executive roles in digital curation map to each descriptor. These skills and competences encompass not just technical knowledge and duties but widen out to also encompass personal attributes and behaviours, further helping to define the approaches that a curriculum should encourage in individuals to shape them for success in digital curation professions. To ensure ease of use and to minimise barriers to comprehension, the language was attuned in response to feedback from the community, and skills and competences throughout were categorised into things that the individual 'understands', 'is able to' do and 'is aware of'.

Each lens aims to specify the knowledge, abilities and awareness that should be addressed by digital curation training for a specified level of staff in a cultural heritage institution.

The individual professional – the practitioner, manager or executive – is deliberately positioned at the centre of the lens. The skills and competences desirable for the role surround the individual and are divided into four quadrants. These in turn divide into three or four subcategories. Each subcategory has several descriptors. This structure is an attempt to provide an ontology of the skills and knowledge of each of three broad staff groups in digital curation in the cultural heritage sector, but also follows the legible approach of other successful skills models such as the Vitae Researcher Development Framework (which also influenced the use of term 'descriptor' in the framework) and the UK Society of College, National and University Libraries model, 'Seven Pillars of Information Literacy' [6].

The aim is to provide a user-friendly format that showcases information in a quickly digestible way.

VI. FUTURE DEVELOPMENT

The answer to the dilemma of whether all cultural heritage professionals should up-skill in digital curation, or whether it should be left to specialists, is not something that can be resolved by one 30-month project such as DigCurV. Pragmatically, then, in order to address as many futures in digital curation as possible, the project has worked with an open definition of lifelong learning and vocational training, acknowledging the relevance of all postgraduate and professional-level training available both to those intending to enter and also those already working in the field. This includes training types from short courses

on specific skills for existing professionals in the sector, to master's courses specifically training students in digital curation skills.

The international network established by the project – which includes and extends beyond the founding partners – has been involved in iterative development of the curriculum framework including detailed evaluation events in the second half of 2012. Further useful activity in this area may consider domain-specific curricula, extend community use – both as contributors and browsers – of the DigCurV training registry [7], undertake mapping to relevant larger European skills frameworks and consider the feasibility of accreditation of training offerings.

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