

DPC Competency Framework and Audit Toolkit (DPC CAT)



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Why We Need to Think About Skills

- Skilled staff are essential to successful digital preservation!
- Organizations need the right staff with the right skills to support preservation
- It is an interdisciplinary undertaking
 - Competencies incl. domain-specific, technical, and generic professional and project skills
- Skills and roles needed depend on:
 - Organizational context and structure
 - Current and target DP capabilities



Why a New Framework?

Practitioners told us they needed help with:

- Identifying skill gaps
- Structuring professional development
- Making the case for more staff
- Developing role descriptions
- Recruitment
- Our key aims:
 - To encompass good practice
 - Flexibility - variety of purposes and contexts
 - Practicality - clear processes for use
 - Closely linked to DPC RAM



Methodology

Phase 1: Preliminary Research

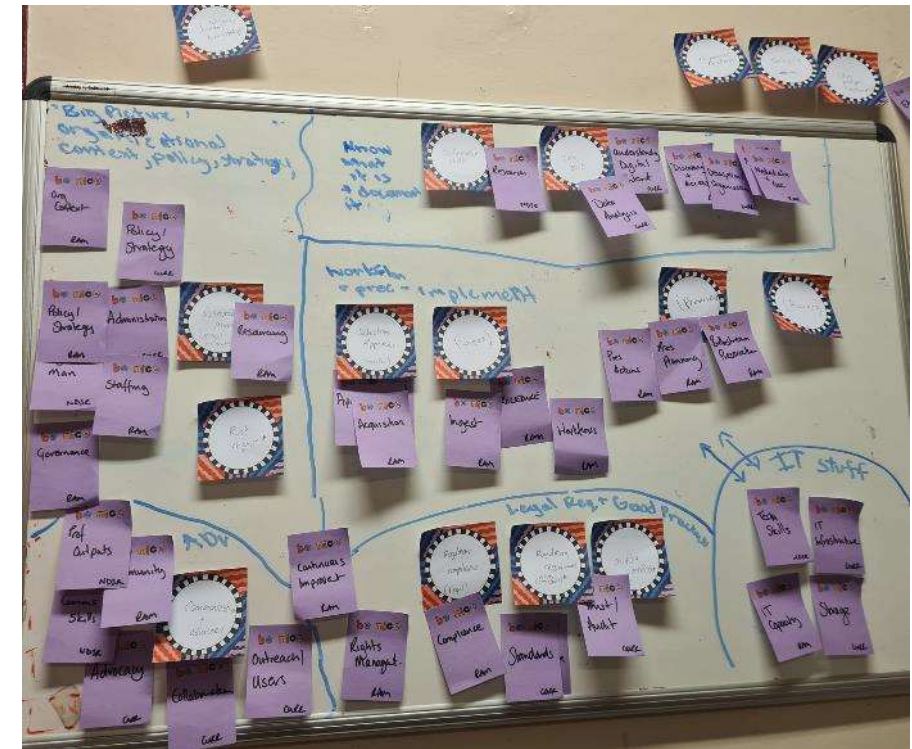
- Gathered relevant articles and resources on digital competencies and curricula for a shared reading list
- Individual reviews and assessments
- Face-to-face meeting to compare findings and compile a preliminary list based on discussion

Phase 2: Development and Design

- Series of mapping exercises for further analysis and (re)structuring

Phase 3: Review, Feedback & Refining

- With DPC colleagues, DPC Member Preview, and Pilot of DPC CAT



The Competency Framework



- Define the broad range of skills, knowledge and competencies required for successful digital preservation
 - Across all staff involved in preservation
- Accompanying resources:
 - Competency Audit Toolkit (DPC CAT)
 - Example role descriptions



The Framework aims to be...



- Applicable for organizations of any size and in any sector
- Able to support a range of workforce development activities
- Preservation strategy and solution agnostic
- Based on existing good practice
- Simple to understand and quick to apply



A Quick Explanation of Terms



Digital Preservation

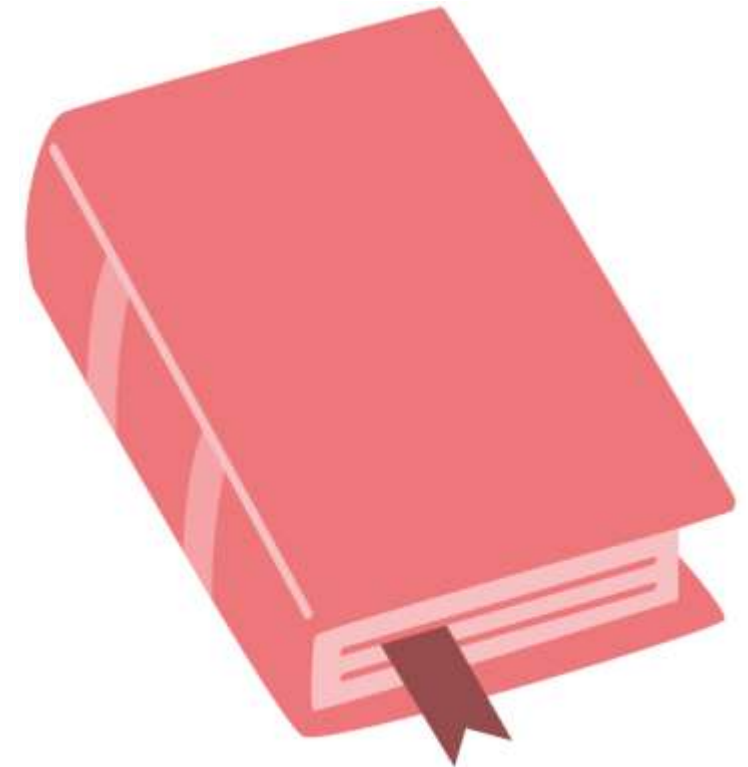
- the series of managed activities necessary to ensure continued access to digital materials for as long as necessary.

Competency

- a combination of skills, knowledge, and behaviors that, when combined, allow an individual to perform the duties of their role

Skill

- A more specific ability that can be applied to complete a particular task or reach a certain outcome



Overview: Main Structure



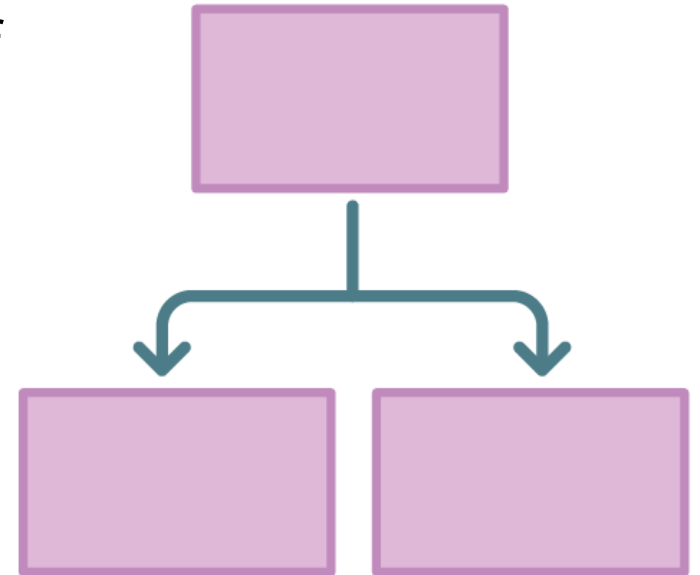
Five high-level competency areas

- overview of and quick reference to the broad range of competencies required to undertake digital preservation work.

Twenty-eight skill elements

- organized in groups under the competency areas
- break down the competencies into more clearly defined units

Presented in the following table...





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Competency Area	Skill Element No.	Skill Element
Governance, Resourcing, and Management	1	Policy Development
	2	Risk Management
	3	Resource Management
	4	Staff Management
	5	Strategy and Planning
	6	Analysis and Decision-Making
Communications and Advocacy	7	Effective Communication
	8	Collaboration and Teamwork
	9	Stakeholder Analysis and Engagement
	10	User Analysis and Engagement
	11	Advocacy
	12	Training
	13	Producing Documentation
Information Technology	14	General IT Literacy
	15	Computer Programming
	16	System Procurement
	17	Storage Infrastructures
	18	Information Security
	19	Workflow Development and Implementation
Legal and Social Responsibilities	20	Legal and Regulatory Compliance
	21	Environmental Impact
	22	Inclusion and Diversity
	23	Ethics
Digital Preservation Domain Specific	24	Metadata Standards and Implementation
	25	Information Management Principles
	26	Approaches to Preservation
	27	DP Standards and Models
	28	Managing Access

Overview: Skill Levels

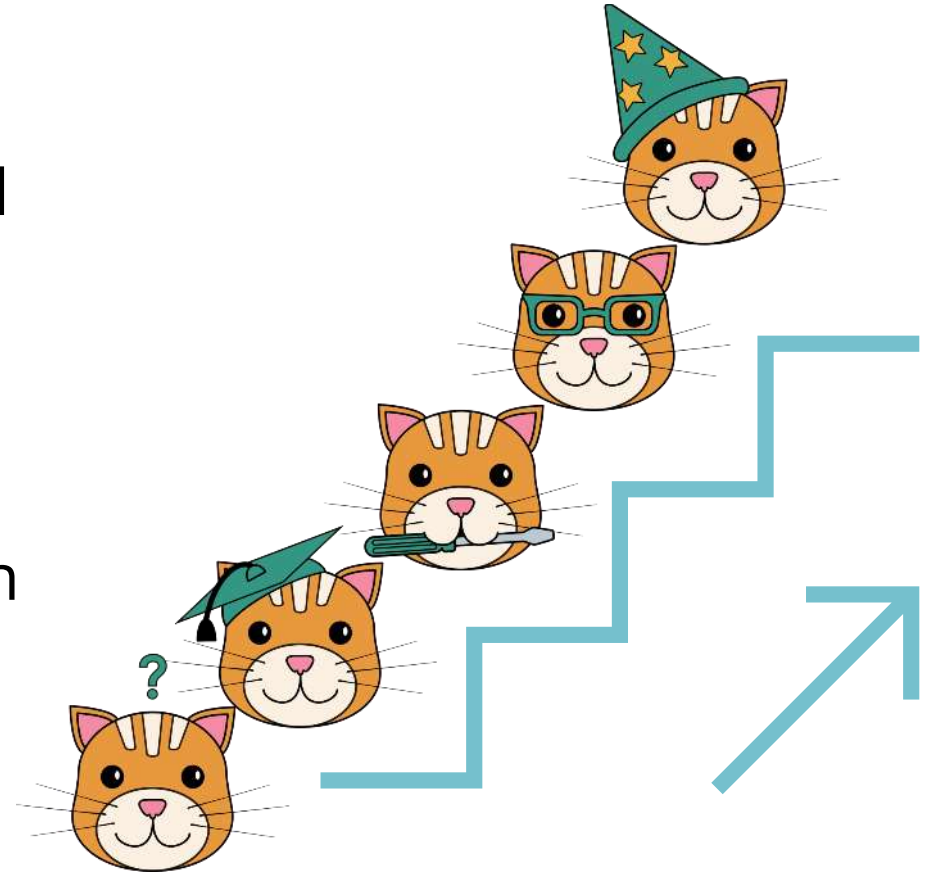
Five skill levels

- representing a progression of knowledge and skills

Examples of 'activity descriptors'

- e.g., how it might be used in a statement describing a skill element in a role description at that level

Presented in the following table...



Level No.	Skill Level	Description	Example Activity Descriptor Words
0	Novice	Limited awareness of the skill element.	Has heard of, recognizes, is aware of
1	Beginner	A basic understanding of the skill element. May have received some training, but little or no practical experience.	Understands, has studied, familiar with, uses, collaborates, communicates, supports
2	Intermediate	A sound understanding of the skill element and some experience of its practical application.	Has delivered, has used, applies, implements, inputs to, plans, selects, documents
3	Advanced	A thorough understanding of the skill element and significant experience of its practical application.	Develops, leads on, manages, analyzes, monitors
4	Expert	An in-depth understanding of the skill element and a leader in the development of approaches to its practical application.	Innovates, authors, designs, researches



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Granularity and Detail

Additional tables provide further detail including:

- Example statements to help clarify skill elements
 - How they might be presented in a role description
- Specific example activities to demonstrate different tasks where the skill element might be deployed in practice

The Full Competency Framework is available at <https://www.dpconline.org/digipres/train-your-staff/dp-competency>



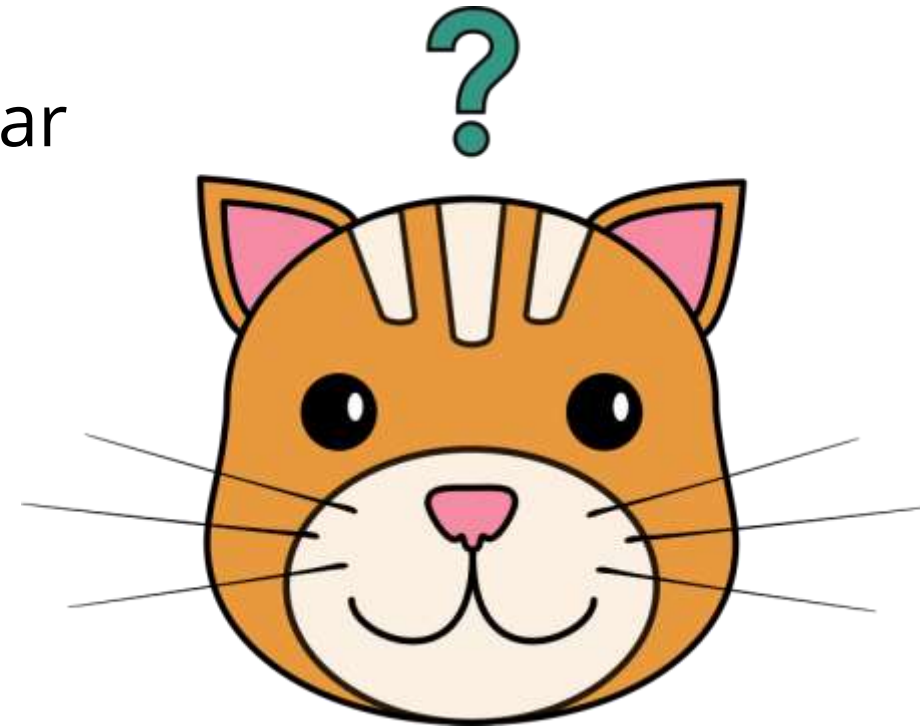
Accompanying Resources



The Competency Audit Toolkit



- a.k.a. DPC CAT
- Developed with the support of the UK Nuclear Decommissioning Authority
- Designed as a companion to the Competency Framework
- Provides practical structured processes for assessing competencies
- Toolkit contains:
 - A guidance document
 - A workbook for individual audits
 - A workbook for organizational audits

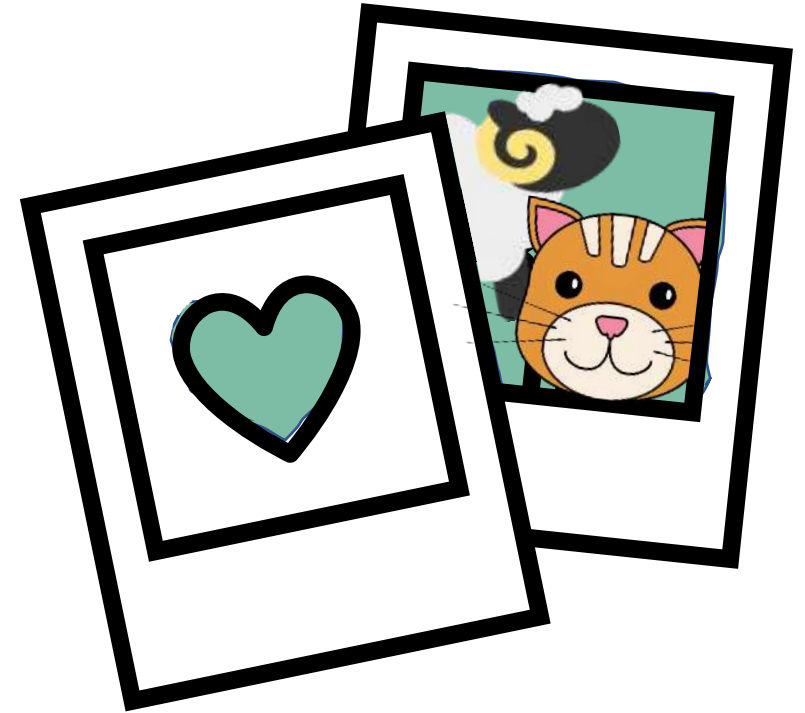


Why Use DPC CAT?



DPC CAT Facilitates:

- Audit of an individual's skills and professional development planning
- Role descriptions assessments
- Audit of digital preservation skills across an organization
 - *Linked to DPC RAM!*



Using DPC CAT: The DPC CAT Pilot



- Conducted a Pilot to test DPC CAT for feedback and refining
- Five DPC Member orgs participated
- Pilot involved:
 - Introductory online session with participants
 - Participants undertake competency audit process using DPC CAT
 - Ongoing support through the active audit phase
 - Gathering and analysis of feedback



Using DPC CAT: Some Examples from the Pilot



Participant uses of CAT included

- Evaluating the skill and capability levels needed for a job role
- Identifying and signposting for training, particularly non-technical training opportunities
- Showing the range of work carried out that is not in the job description, and possibly use this to help in salary negotiations
- As an advocacy tool, having a tangible structure for discussions about skills for digital preservation



DPC CAT Individual Skills Audit



The CAT's Workbook for Individual Audits contains:

- Worksheet for individual skills audit and development planning
- Worksheet for role description audit
- Tabs containing the Framework & skill level descriptions
- Worksheet for individual skills audit and development planning:
 - Identifying current skill levels
 - Identifying target skill levels or key areas
 - Development ideas and plans
- Worksheet for role description audit:
 - Comparing role description with actual tasks & responsibilities
 - Providing evidence for redrafting, increased compensation, promotion, making the case for more staff, etc.



Individual Skills Audit



At the top of the worksheet, you will see...

Skill Area	No.	Skill Element	Relevant to Role?	Current Skill Level - Number	Current Skill Level - Text	Target Skill Level (optional)	Ideas on How to Increase Skill Level (optional)
Governance, Resourcing, and Management	1	Policy Development	Yes	1	Beginner	Intermediate	Assist Digital Archivist with forthcoming policy review
	2	Risk Management	Yes	0	Novice	Beginner	DPC risk management training course
	3	Resource Management	No				
	4	Staff Management	No				
	5	Strategy and Planning	Yes	1	Beginner	Intermediate	Draft project plan for review by mentor
	6	Analysis and Decision-Making	Yes	2	Intermediate		

List of Skill Areas and Elements

Blank fields for you to work through each, identifying relevance and assessing skills using the five levels

Role Description Audit



In the DPC CAT Individual Skill Audit workbook, the worksheet will be in the **'Role Description Assessment'** tab

Skill Area	No.	Skill Element	Relevant to Role?	Related Tasks/ Responsibilities	Included in Role Description	Text from Role Description	Update Required?	Notes
Governance, Resourcing, and Management	1	Policy Development	Yes	Developed organizational digital preservation policy and will manage biannual review and update process	Yes	Leads development and review of digital preservation policy	No	
	2	Risk Management	Yes	Risk assessments for DP systems, workflows, and preserved content	No	N/A	Yes	Need explicit mention risk management responsibilities, will help establish case for further training
	3	Resource Management	No					N/A
	4	Staff Management	Yes	Line manager for 2 digital preservation officers	Yes	Will assume line management duties as required	Yes	Needs updating to be a better representation of responsibilities, i.e. that this has become an essential part of the role

List of Skill Areas and Elements

Where you can work through each, identifying relevance and assess current tasks and responsibilities with those provided in a role description

DPC CAT Organizational Audit



- Benchmark competencies against current and target DP capabilities (DPC RAM)
 - Identifies required skill levels, highest and average skill levels for staff, and where gaps exist.
- Before starting, remember to consider:
 - Why? – Aims and outcomes? Development? New staff?
 - How? – Need to complete a RAM Assessment? Capture staff skill info individually? Through workshops? Audit Manager? How to ensure consistency?
 - Who? – Need to scope who to assess and get necessary permissions. Take org. politics into consideration!



Org. Audit (1) – RAM Scores



In the DPC CAT Organizational Skills Audit workbook, there will be a worksheet to enter scores from DPC RAM assessment (**'RAM Scores' tab**)

	RAM Section	Current Level	Target Level		Level Number	Level Description
A	Organizational Viability	2	3			
B	Policy and Strategy	1	3		0	Minimal Awareness
C	Legal Basis	1	2		1	Awareness
D	IT Capability	2	3		2	Basic
E	Continuous Improvement	2	3		3	Managed
F	Community	3	3		4	Optimized
G	Acquisition, Transfer and Ingest	1	2			
H	Bitstream Preservation	2	3			
I	Content Preservation	0	2			
J	Metadata Management	2	3			
K	Discovery and Access	1	2			

Org. Audit (2) – Staff Skills



And a worksheet to enter the skill levels you've gathered from individual skills audits (**'Staff Skill Levels'** tab)

	Name of Staff Member (Optional)	Hugh Culber	Keyla Detmer	Michael Burnham	Joann Owosekun
	Job Title (Optional)	Digital Archivist	Digital Collections Officer	Digital Program Manager	Digital Collections Officer
Governance, Resourcing, and Management	1 Policy Development	2	N/A	3	N/A
	2 Risk Management	1	N/A	2	0
	3 Resource Management	0	N/A	2	N/A
	4 Staff Management	1	N/A	2	N/A
	5 Strategy and Planning	2	0	3	1
	6 Analysis and Decision-Making	3	2	3	1
Communications and Advocacy	7 Effective Communication	3	2	3	2
	8 Collaboration and Teamwork	3	3	4	2
	9 Stakeholder Analysis and Engagement	1	N/A	1	N/A
	10 User Analysis and Engagement	1	0	0	0
	11 Advocacy	2	1	3	1
	12 Training	1	N/A	2	N/A
	13 Producing Documentation	2	1	1	1
Information Technology	14 General IT Literacy	2	3	2	2
	15 Computer Programming	1	0	1	N/A
	16 System Procurement	0	N/A	3	N/A
	17 Storage Infrastructures	1	1	2	0
	18 Information Security	0	0	1	0
	19 Workflow Development and Implementation	2	0	1	1
Legal and Social Responsibilities	20 Legal and Regularity Compliance	1	0	2	1
	21 Environmental Impact	0	0	1	0
	22 Inclusion and Diversity	1	0	1	1
	23 Ethics	2	0	3	1
Digital Preservation Domain Specific	24 Metadata Standards and Implementation	2	1	2	1
	25 Information Management Principles	3	1	3	0
	26 Approaches to Preservation	1	0	1	0
	27 DP Standards and Models	2	1	3	1
	28 Managing Access	0	0	1	N/A

Org. Audit (3) - Results



Once the data from the RAM Scores and Staff Skill Levels are entered into the workbook, a report on the organizational competencies audit will automatically generate (**‘Competency Audit Results’** tab).

		Required Skill Level for Current RAM Maturity		Required Skill Level for Target RAM Level		Highest Skill Level		Skill Gap for Current RAM	Skill Gap for Target RAM	Count of Staff Scoring Skill	Average Skill Level		Skill Gap for Current RAM	Skill Gap for Target RAM		
		1	2	3	4	5	6	7	8		9	10	11	12		
Governance, Resourcing, and Management	1	Policy Development		1	Beginner	3	Advanced	3	Advanced	No Gap	No Gap	2	2.5	Intermediate	No Gap	1 Level
	2	Risk Management		2	Intermediate	2	Intermediate	2	Intermediate	No Gap	No Gap	3	1	Beginner	1 Level	1 Level
	3	Resource Management		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	2	1	Beginner	1 Level	2 Levels
	4	Staff Management		2	Intermediate	2	Intermediate	2	Intermediate	No Gap	No Gap	2	1.5	Beginner	1 Level	1 Level
	5	Strategy and Planning		1	Beginner	3	Advanced	3	Advanced	No Gap	No Gap	4	1.5	Beginner	No Gap	2 Levels
	6	Analysis and Decision-Making		2	Intermediate	3	Advanced	3	Advanced	No Gap	No Gap	4	2.25	Intermediate	No Gap	1 Level
Communications and Advocacy	7	Effective Communication		3	Advanced	3	Advanced	3	Advanced	No Gap	No Gap	4	2.5	Intermediate	1 Level	1 Level
	8	Collaboration and Teamwork		1	Beginner	2	Intermediate	4	Expert	No Gap	No Gap	4	3	Advanced	No Gap	No Gap
	9	Stakeholder Analysis and Engagement		2	Intermediate	3	Advanced	1	Beginner	1 Level	2 Levels	2	1	Beginner	1 Level	2 Levels
	10	User Analysis and Engagement		1	Beginner	2	Intermediate	1	Beginner	No Gap	1 Level	4	0.25	Novice	1 Level	2 Levels
	11	Advocacy		2	Intermediate	3	Advanced	3	Advanced	No Gap	No Gap	4	1.75	Beginner	1 Level	2 Levels
	12	Training		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	2	1.5	Beginner	1 Level	2 Levels
Information Technology	13	Producing Documentation		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	4	1.25	Beginner	1 Level	2 Levels
	14	General IT Literacy		2	Intermediate	3	Advanced	3	Advanced	No Gap	No Gap	4	2.25	Intermediate	No Gap	1 Level
	15	Computer Programming		2	Intermediate	3	Advanced	1	Beginner	1 Level	2 Levels	3	0.667	Novice	2 Levels	3 Levels
	16	System Procurement		2	Intermediate	3	Advanced	3	Advanced	No Gap	No Gap	2	1.5	Beginner	1 Level	2 Levels
	17	Storage Infrastructures		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	4	1	Beginner	1 Level	2 Levels
	18	Information Security		2	Intermediate	3	Advanced	1	Beginner	1 Level	2 Levels	4	0.25	Novice	2 Levels	3 Levels
Legal and Social Responsibilities	19	Workflow Development and Implementation		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	4	1	Beginner	1 Level	2 Levels
	20	Legal and Regularity Compliance		1	Beginner	2	Intermediate	2	Intermediate	No Gap	No Gap	4	1	Beginner	No Gap	1 Level
	21	Environmental Impact		1	Beginner	2	Intermediate	1	Beginner	No Gap	1 Level	4	0.25	Novice	1 Level	2 Levels
	22	Inclusion and Diversity		2	Intermediate	2	Intermediate	1	Beginner	1 Level	1 Level	4	0.75	Novice	2 Levels	2 Levels
	23	Ethics		1	Beginner	2	Intermediate	3	Advanced	No Gap	No Gap	4	1.5	Beginner	No Gap	1 Level
	24	Metadata Standards and Implementation		2	Intermediate	3	Advanced	2	Intermediate	No Gap	1 Level	4	1.5	Beginner	1 Level	2 Levels
	25	Information Management Principles		1	Beginner	2	Intermediate	2	Advanced	No Gap	No Gap	4	1.75	Beginner	No Gap	1 Level

Example Role Descriptions



8 example role descriptions:

- Graduate, Trainee, DP Officer, DP Archivist/Librarian, Web Archivist, Developer, DP Program Manager, Exec/Senior Admin
- For each role: relevant skill elements, expected skill levels, and example statements
- To be used as aids or for guidance, **not** prescriptive

Competency Area	#	Skill Element	Relevant to Role	Level	Statement
Governance, Resourcing, and Management	1	Policy Development	Yes	Intermediate	Applies organizational digital preservation policies to practice, and can provide input to the development of policies
	2	Risk Management	Yes	Intermediate	Applies risk management techniques to assess risks and vulnerabilities of digital content and technologies to inform preservation planning activities
	3	Resource Management	Yes	Beginner	Familiar with managing resources within a budget, and understands key costs of digital preservation
	4	Staff Management	Yes	Beginner	Can effectively act as a line manager, and is able to provide input to staff recruitment
	5	Strategy and Planning	Yes	Intermediate	Implements strategy using suitable project planning and management techniques
	6	Analysis and Decision-Making	Yes	Intermediate	Assesses issues and plans actions to address them, prioritizing and delegating tasks where needed, using analytical and problem-solving skills
	7	Effective Communication	Yes	Intermediate	Communicates about work effectively, both verbally and in written formats, including preparing reports and giving presentations
	8	Collaboration and Teamwork	Yes	Intermediate	Works effectively as part of a team

More to Come...



Aim to continue to expand supporting resources:

- To support recruitment
- Guidance on how to “level-up” skills
 - Information on available resources, training, etc.
- Labour market analysis
- More online training from DPC



...and We Want to Hear From You!



- Framework and resources will be reviewed periodically based on:
 - Feedback
 - Changes to good practice
- Please let us know if you use it!
 - What for?
 - How did it go?
 - What worked? What could be improve
 - Blog posts welcome!
 - bit.ly/CATFeedback



Find everything we've mentioned at:
www.dpconline.org



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