Curation micro-services

"Make each program do one thing well"

"To do a new job, build afresh rather than complicate old programs by adding new features"

"Expect the output of every program to become the input to another, as yet unknown, program"

"Design and build software … to be tried early"

"Don't hesitate to throw away the clumsy parts and rebuild them"

— D. L. McIlroy et al. (1978)

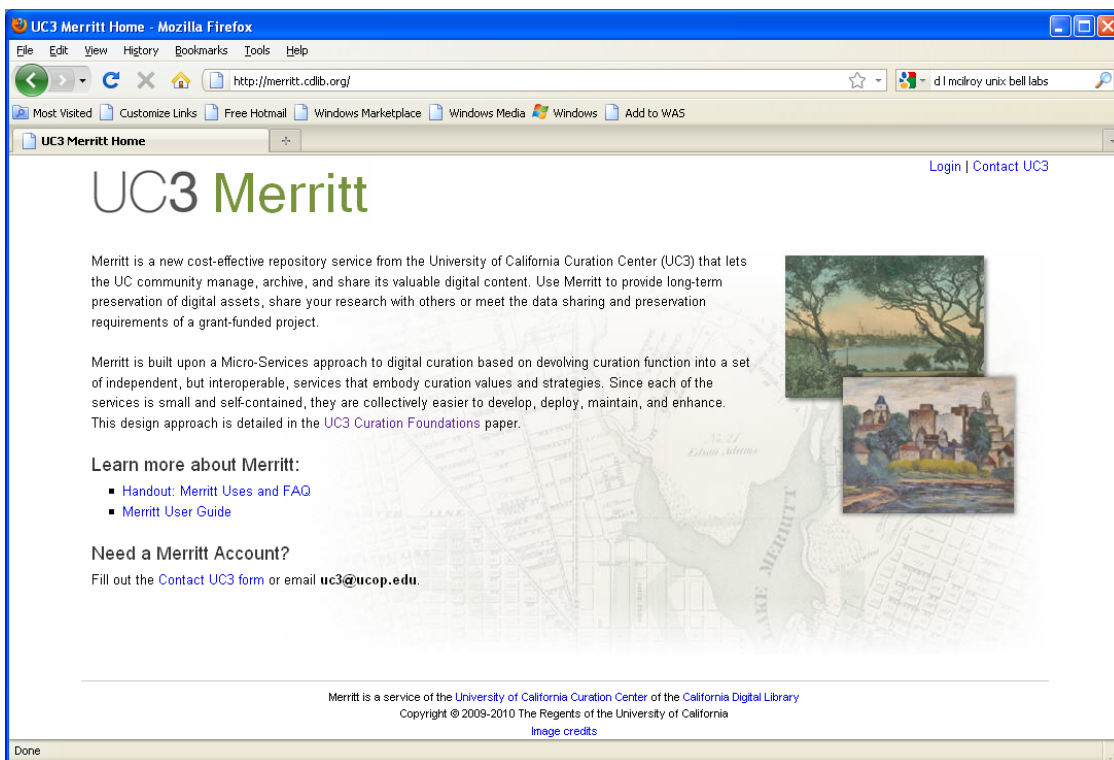| Metaphors	Assumptions	Principles	Preferences	Practices
Pipeline	Safety through redundancy	Modularity	The small and simple over the large and complex	Focus on outcomes, not means
Lego bricks	Meaning through context	Granularity	The minimally sufficient over the feature laden	Complexity through composition, not addition
	Utility through service	Orthogonality	The configurable over the prescribed	Policy neutral, platform and protocol independent
	Value through (re)use	Emergence	The proven over the (merely) novel	Approach sufficiency through incrementally necessary steps
	Stewardship is a relay	Evolution		Early prototyping, frequent refactoring
		Parsimony		Code to interfaces

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Mode	Focus	Value	Service		Valence	Visibility
Curation	Value	Accretion	*Annotation*	*UI / Access control / Message queuing*	Interoperation	User-facing
		Visibility	*Notification*			
	Utility	Accessibility	*Access*		Application	
		Derivation	*Transformation*			
		Selectivity	*Search*			
		Actionability	*Index*			
		Stewardship	*Ingest*			
Preservation	Context	Epistemology	*Characterization*		Interpretation	Provider-facing
		Ontology	*Inventory*			
	State	Reliability	*Replication*		Protection	
		Fixity	*Fixity*			
		Stability	*Storage*			
		Identity	*Identity*			

Curation micro-services

For more information…

UC Curation Center (UC3)
http://www.cdlib.org/uc3

Micro-service specifications
https://confluence.ucop.edu/
display/Curation/Home

Digital curation group
http://groups.google.com/
group/digital-curation

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Erik Hetzner	*Tracy Seneca*
Greg Janée	*Marisa Strong*
John Kunze	*Perry Willett*
Margaret Low	

✓ *Principle of least surprise*

✓ *Multiple interface modalities*

- • *RESTful HTTP*
- • *Command line*
- • *Procedural* (*Java, Perl, Ruby,…*)

✓ *Linked data*

✓ *Stable URL references*

✓ *The file system is the database*