

# Building a Culture of Reuse:

## An Analysis of Reusable Software and Policies for Institutional Libraries

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# Agenda

1. Context at Virginia Tech University Libraries (VTUL)
2. Discussion of problem statements
3. Methodology - Web Survey
4. Results
5. Interventions and design considerations
6. Conclusion



# Openness at VT



Increased value for open knowledge at a University-level

- Recently publish Policy 13000, Policy on Intellectual Property
- Open Knowledge Committee in Library
- Blogs, resources, events, and publishing all promoting openness
- Open Access Subvention Fund

## Policy on Intellectual Property

No. 13000

1.0 Purpose

OPEN  ACCESS

The logo consists of a large orange padlock icon with a white circle in the center, positioned between the words "OPEN" and "ACCESS".

Open@VT

# What about the “backend” work?

## Example work that is overlooked

- Documentation
- Policy
- Software
- Wikis
- LibGuides
- How-To's
- Tools

## Reasons work may not be shared

- Lack of standards
- Unwilling or unable to share
- University/organization policies
- I don't want to
- I don't know how to

# Context at VTUL

Pursuing a CoreTrustSeal  
co-application with the Academic  
Preservation Trust + new platform



lots of...

- Documentation and policy development
- Homegrown software development
- Software README development and reuse instructions
- Intentional information released to the public
- Community review and feedback on policies
- Policy-driven software development

# Research Questions

## Research Question 1

Are VTUL digital library resources understandable and reusable to VTUL stakeholders?

## Research Question 2

Are VTUL digital library resources understandable and reusable to organizations external to VTUL, and how can we improve our resources for reusability?

We spend a lot of energy trying to create things from scratch when, frequently, another library may have already done something very similar.”

-- Meredith Farkas

# Necessity of Policy & Software Reusability

## Policy

- Dictates consistent workflows and strategies
- Aids in self-audits or certifications
- Ongoing resource for referencing the “why” of decisions
- Trust

## Software

- Improves software quality through broader testing in a community
- Promotes progress
- Promotes new concepts and methods faster
- Trust



# Methodology

# Internal Survey

- Distributed to our IT Advisory Group
- Informal, anonymous, vibe-check
- Questions:
  - As an IT Advisory Group member, are you familiar with the process for reviewing and approving policies for the digital library?
  - What was most understandable about this process?
  - What was the least understandable about this process?
  - Do you feel that you would reuse these policies in the future for your own work?
    - If yes, how so?
  - Do you feel that a colleague in other University Libraries would be able to understand and reuse the digital library policies for similar purposes?
  - Do you have any other comments you would like to include?

# Web Survey (Virginia Tech IRB #22-430)

- 8 questions
- Designed to explore the impact of our open policies and open software outside of VTUL and collect feedback on how to make our resources more reusable based on community needs
- No questions required a response
- Distributed to listservs in the communities of digital libraries, digitization, software development, IT management, and digital curation, digital preservation, and on social media
- Survey results were anonymized and each questions' responses were condensed into broader topics for analysis

# Survey Questions

1. What is your field?
2. Please indicate all of the areas your position interacts with in your organization [check from list]

Please navigate to

<https://apps.es.vt.edu/confluence/display/LIBDPLD/Digital+Library+Policy+and+Documentation>

3. How likely are you to reuse or adapt other digital library policy for your own work? [scale 1 - 5]
4. Regarding policy, what is the most important factor to you when you consider reusing resources? [check from list]

Please navigate to <https://github.com/vt-digital-libraries-platform>

5. How likely are you to reuse or adapt other digital library code for your own work? [scale 1 - 5]
6. Regarding digital library code bases, what is the most important factor to you when you consider reusing resources? [check from list]
7. If you wanted to make your digital library resources more reusable and discoverable, how might you go about doing so? [free text]
8. Do you have any other comments you would like to share regarding digital library resources? [free text]

# Limitations

## Informal Survey (Internal only)

- Distributed only to a single group within the Library
- Designed to take the pulse, not to gather significant information

## Web Survey (External communities)

- Combining policy and software in the same survey may have deterred participation due to lack of experience in either field
- Scope is limited to only VTUL digital resources

# Results

# Informal Survey Results

- 50% response rate
- Limited awareness of the policy development and approval process
  - Some attribution to turnover in the group
- 75% think they may use/reuse policies
- 25% think other university's may use/reuse policies

# Web Survey Results: Range of Respondents

49 complete responses

1. Field: top four fields were Digital Libraries/Archives (25%), Libraries (14%), Digital Preservation (11%), and Information Science (11%).
2. Department interaction: Digital Libraries, Information Technology, Digital Preservation (16% ); Metadata (14%); Special Collections (12%); Digital Imaging (10%); Write-in (3%)
  - a. Write-ins: physical preservation and conversation, scholarly communications, leadership and administration, and access/discovery services.



# Web Survey Results: Policy Feedback

## 3. Policy use/reuse:

- 1 (very unlikely): 10.64%
- 2 (not likely): 8.51%
- 3 (neutral): 21.28%
- 4 (likely): 27.66%
- 5 (highly likely): 31.91%

## 4. Important factors for policy reuse

- Ease of reuse or adaptation: 27.37%
- Relevance to your work: 25.26%
- Usability/understandability: 24.21%
- Accessibility: 11.58%
- Discoverability: 9.47%
- Other: 2.11%
  - Licensing, thoroughness

# Web Survey Results: Software Feedback

## 5. Software use/reuse:

- 1 (very unlikely): 8.7%
- 2 (not likely): 26.09%
- 3 (neutral): 26.09%
- 4 (likely): 28.26%
- 5 (highly likely): 10.87%

## 6. Important factors for software reuse

- Ease of reuse or adaptation: 27.84%
- Usability/understandability: 26.8%
- Relevance to your work: 24.74%
- Accessibility: 8.25%
- Discoverability: 6.19%
- Other: 6.19%
  - Quality
  - Community involved in coding
  - Ability to cut and paste modules or snippets
  - Current staffing of library IT institution
  - Sustainability

# Web Survey Results: Resource Reusability Strategies

## 7. Top Strategies:

- Storage on GitHub
- Clear documentation
- Clear licensing for reuse
- Promotion at appropriate conferences and listservs

## Additional topics:

- Utilizing sitemaps for increased discoverability
- Improving the metadata quality of resources
- Providing resources specifically on how to implement software

# Web Survey Results: Additional Comments

“Most likely to re-use simple modules with minimal (or no) external dependencies that solve singular issues”

“DOCUMENTATION.”

“There is very little in my work that I have not borrowed from somewhere or learned from someone else.”

“Usually we are closed in our Digital library software. It should be a complement component”

“It'd be helpful if people didn't go into something with the mindset that they are very special snowflakes who need to reinvent the g.d. wheel.”

# Overall Web Survey Results

Informal survey indicates that we can do a much better job communicating policies within VTUL

Survey results indicate that people want to be able to see what resources other's have to ideally to reuse and adapt them

# Interventions & Design Considerations at VTUL

# Things We Will Continue

- Promoting resources at conferences
- Hosting policies and software in publicly accessible locations
- Documentation!
- Asking for feedback from colleagues
- Regular updates and reviews



# Things We Will Improve

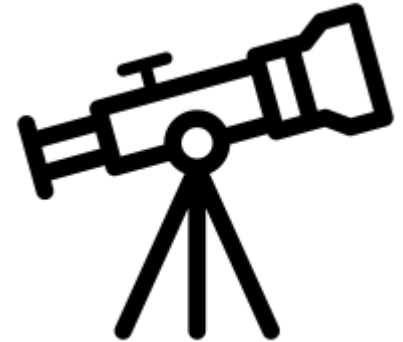
- Add clear licensing to all resources
- Improve documentation, particularly on decisions made and rationalization
- Promote via relevant listservs and social media
- Policies
  - Cite other policies we used for reference
  - Supplementary documentation that notes parts that are specific to VT
- Software
  - Increase guidance on how to use the software, common errors
  - Commenting





# Long-term Goals

- Create templates that are more generalizable to other organizations
- Ingest resources to our digital library to assign identifier, handles, and embed metadata
- Improve metadata quality
- Utilize sitemaps for greater discoverability
- More integration with other metadata harvesters like DPLA



# Cool Things We Can't Do Alone

Consortia that develops, shares, and maintains digital library resources in a single aggregated location

Policy edit-a-thons

(If this exists, let me know!)



# Resources to Share - Feedback is Welcome!

## Virginia Tech Digital Library Policy and Documentation

<https://apps.es.vt.edu/confluence/display/LIBDPLD/Digital+Library+Policy+and+Documentation>

## Virginia Tech Digital Libraries Platform GitHub

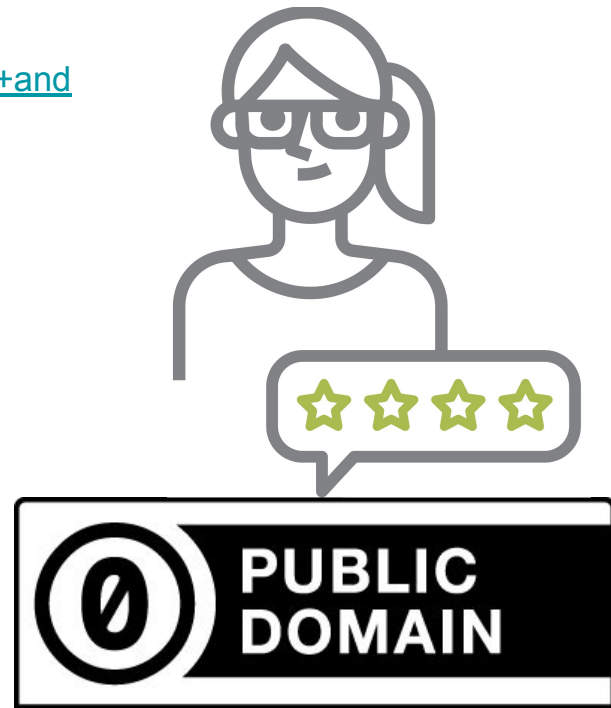
<https://github.com/vt-digital-libraries-platform>

## Virginia Tech Digital Libraries Platform About

<https://about.digital.lib.vt.edu/project/>

## Feedback and Comments

- Software: Digital Libraries ([digital-libraries@vt.edu](mailto:digital-libraries@vt.edu))
- Policy: Digital Libraries ([digital-libraries@vt.edu](mailto:digital-libraries@vt.edu))
  - Alex Kinnaman ([alexk93@vt.edu](mailto:alexk93@vt.edu))



# Thank you!

Questions?

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