How Trustworthy Repositories Understand Risk and Uncertainty

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18 November 2026
Around the World – Risk Management
Digital Preservation Coalition





SCoR-TDR

The Social Construction of Risk in Trustworthy Digital Repository Audit & Certification

- This research is funded by the Institute of Museum and Library Services, Laura Bush 21st Century Librarian Program Early Career Award # RE-259001-OLS-25
- The pilot study for this project was funded by the Einstein Center Digital Future

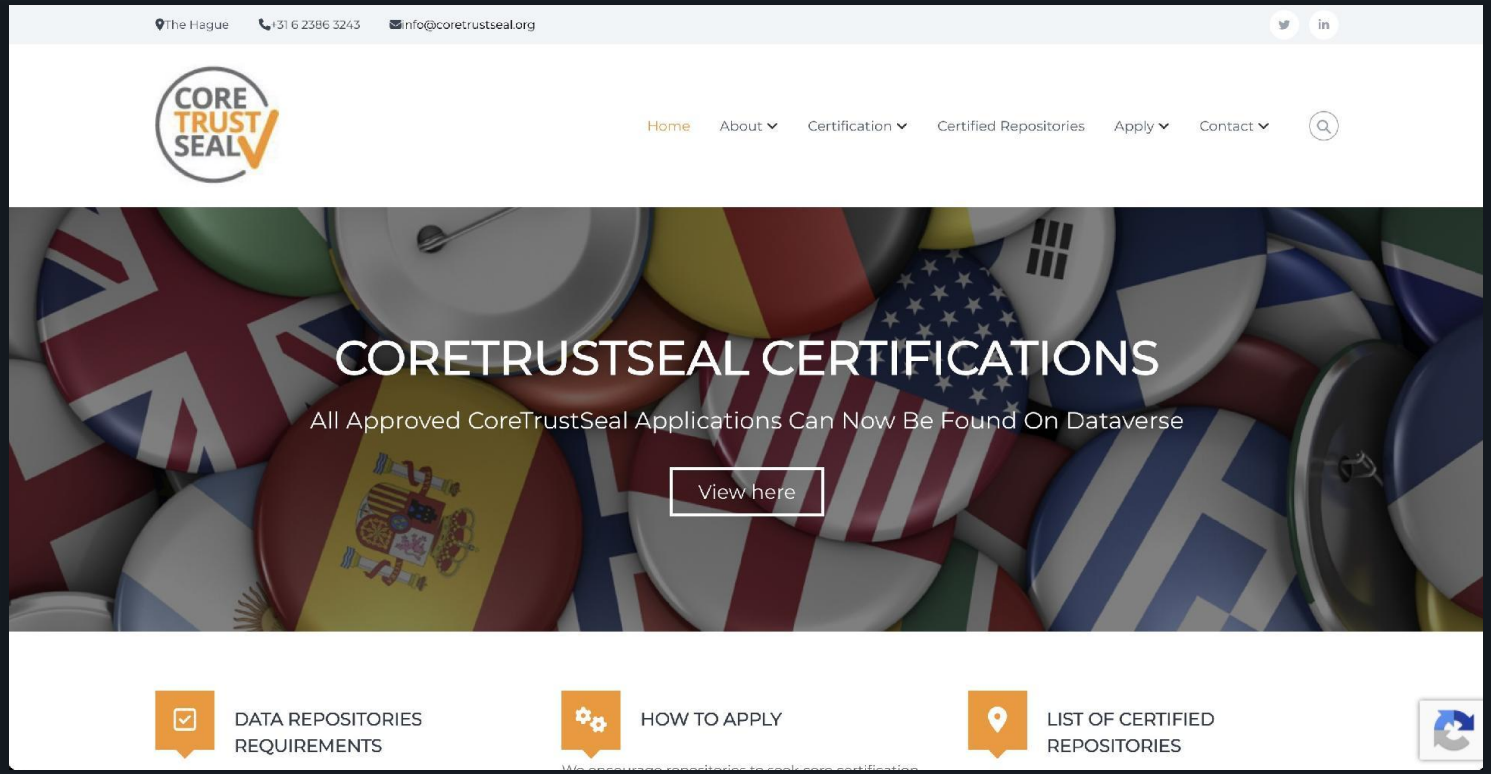
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Overview

- Background & Research Questions
- Methods (Qualitative)
- Findings
- Discussion & Conclusion
- Future Directions

Background

CoreTrustSeal



Risk as a Social Construct

audit processes do not discover risk; rather, they shape how risk is articulated, documented, and evaluated

Uncertainty

audit processes have the potential to identify risks, but formal efforts to assess risk can make it difficult to recognize uncertainty

Research Questions



How do staff members from CoreTrustSeal certified repositories understand risk in the context of long-term digital preservation?

How do those staff members characterize sources of uncertainty for their repositories?

Analytic Framework



Finance



Legal



Organizational Infrastructure



Repository Processes



Technical Infrastructure

Research Methods

2020 Survey of CTS Members

- 171 repositories surveyed, 88 completed responses
  - Response rate: 53.98%
- Questions about: risk, uncertainty, certification criteria, attitudes about certification, experience with TDR certification, & some demographic information
- Text-based qualitative responses



- In 1-2 sentences, what is the most significant risk to your digital repository?
- In 1-2 sentences, what is the most significant uncertainty for your digital repository?

Qualitative Analysis

- Qualitative coding: 3-cycle approach
- IRR for cycles 1 & 2, strong agreement in first round
  - Round 1
    - TDR value: unweighted Cohen’s Kappa 0.96
    - Risk/uncertainty: unweighted Cohen’s Kappa of 0.79
  - Round 2
    - TDR value: unweighted Cohen’s Kappa of 0.67
  - Round 3: single coder, axial coding approach

Findings

Findings



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Organizational Infrastructure



Repository Processes



Technical Infrastructure

Risk

Internal

Uncertainty

External



Finance

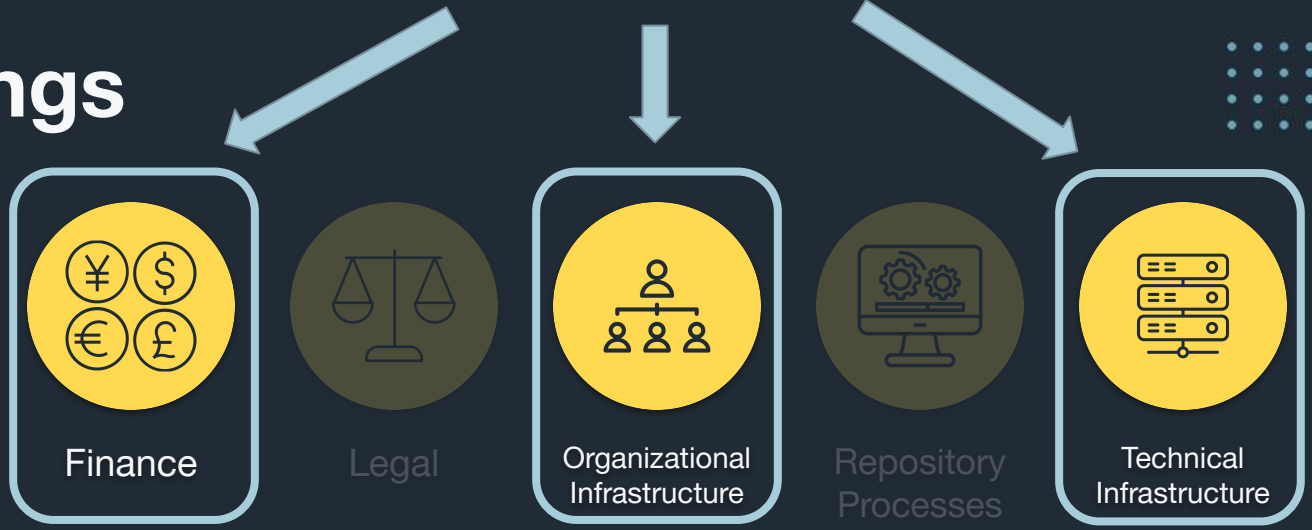


Data & Infrastructure



Designated Community

Findings



Risk

Internal

Uncertainty

External



Findings



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Organizational Infrastructure



Repository Processes



Technical Infrastructure

Risk

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Data & Infrastructure



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Repository Processes



Technical Infrastructure

Risk

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External



Finance



Data & Infrastructure



Designated Community

Finance:
Internal Risk & External Uncertainty

"Secure long-term funding in a time of organizational change, lack of funding risks loss of qualified staff and expertise."
(Respondent 21)

Discussion & Conclusion

Certification, Funding, Risk

- Certification as a point-in-time assessment
- Risks compound through funding
- We need more and better ways to talk about risk, beyond checklists/taxonomies

Future Directions





Acknowledgements

Thank you to the CoreTrustSeal Board for assistance distributing the survey.

Thank you to all of the digital preservation professionals who completed the survey.

Related Publications

Frank, R. D. (2026). Risk and uncertainty in digital preservation: A survey of CoreTrustSeal certified repositories. Journal of Librarianship and Information Science. Open Access: https://doi.org/10.1177/09610006261486056

Frank, R. D. (2026). Structural Assurance Inflation: Perspectives on the Value of Trustworthy Digital Repository Certification. Journal of Documentation, 82(7), 271–288. Open Access: https://doi.org/10.1108/JD-07-2025-0197

Frank, R. D. (2024). Constructing Risk in Trustworthy Digital Repositories. Journal of Documentation, 80(6), 1508-1527. https://doi.org/10.1108/JD-08-2023-0157 Open Access: https://deepblue.lib.umich.edu/handle/2027.42/194298

Frank, R. D., & Rothfritz, L.* (2023). Designated Community: Uncertainty and Risk. Journal of Documentation, 79(4), 880-897. https://doi.org/10.1108/JD-07-2022-0161 Open Access: https://trace.tennessee.edu/utk_infosciepubs/467/

Frank, R. D., & Wylie, J.* (2023). Audit Team Communication and Risk in Trustworthy Digital Repository Certification. Proceedings of the Association for Information Science and Technology, 60(1), 145–155. https://doi.org/10.1002/pra2.776 Open Access: https://trace.tennessee.edu/utk_infosciepubs/474/

Frank, R. D., (2023). Repository Staff Perspectives on the Benefits of Trustworthy Digital Repository Certification. In iPres 2023: Proceedings of the 20th International Conference on Digital Preservation. https://hdl.handle.net/2142/121102 Open Access: https://trace.tennessee.edu/utk_infosciepubs/475/

Frank, R. D. (2022). Risk in Trustworthy Digital Repository Audit and Certification. Archival Science 22, no. 1: 43–73. Open Access: https://doi.org/10.1007/s10502-021-09366-z

Frank, R. D. (2020). The Social Construction of Risk in Digital Preservation. Journal of the Association for Information Science and Technology. 71:474-484. https://doi.org/10.1002/asi.24247 Open Access: http://hdl.handle.net/2027.42/149147

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