Project NA03: Standard of Practice

A Comparison of ARM Literature and Information Protection Standards of Practice

Grant Hurley, University of British Columbia

on behalf of Dr. Fred Cohen, Webster University

17 October 2014 | Second International Symposium, Victoria, BC

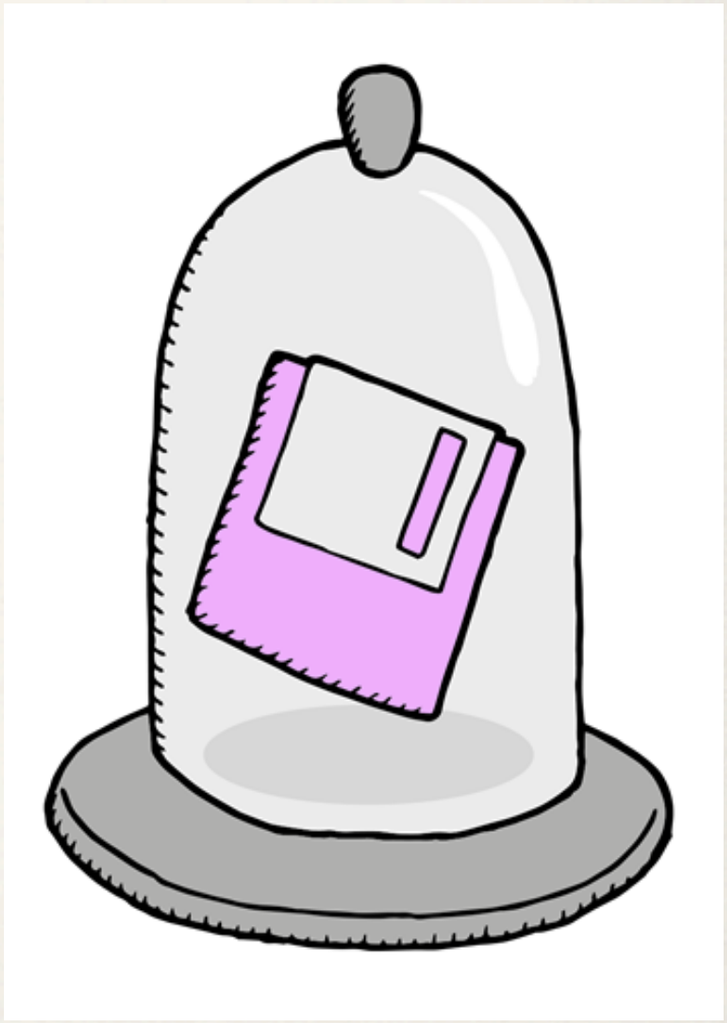
Outline

1. Background & Introduction
2. Introduction to the Standard of Practice (SoP)
3. Development of the Draft ARM SoP
4. Standards & Literature Compared
5. Conclusions
6. Current Steps & Outcomes

1. Background & Introduction

Information Protection (IP)

- Historical concern with protecting information from unauthorized access, manipulation, use, and denial of use; ensuring transmission integrity and secrecy, and authentication (Salzer & Schroeder, 1975; van Biene-Hershey, 2007)



Archives and Records Management (ARM)

- Historical focus on trusted preservation of authentic records for the purposes of evidence and memory (Duranti, 2013; InterPARES2, 2014)

1. Background. Becker et al.

"Digital Preservation is an operational activity with a **long-term vision**, which can lead to difficulties in structuring effective and efficient processes."

"The discipline of IT Governance has a **medium-term vision**: it strives to ensure business continuity by detecting changes early, assessing their impact proactively, and ensuring strategic alignment of technology with business goals."

"Control objectives for dp: Digital preservation as an integrated part of it governance," *Proceedings of the American Society for Information Science and Technology* 48, no. 1 (2011): 1-10.

2. Intro. to Standards of Practice

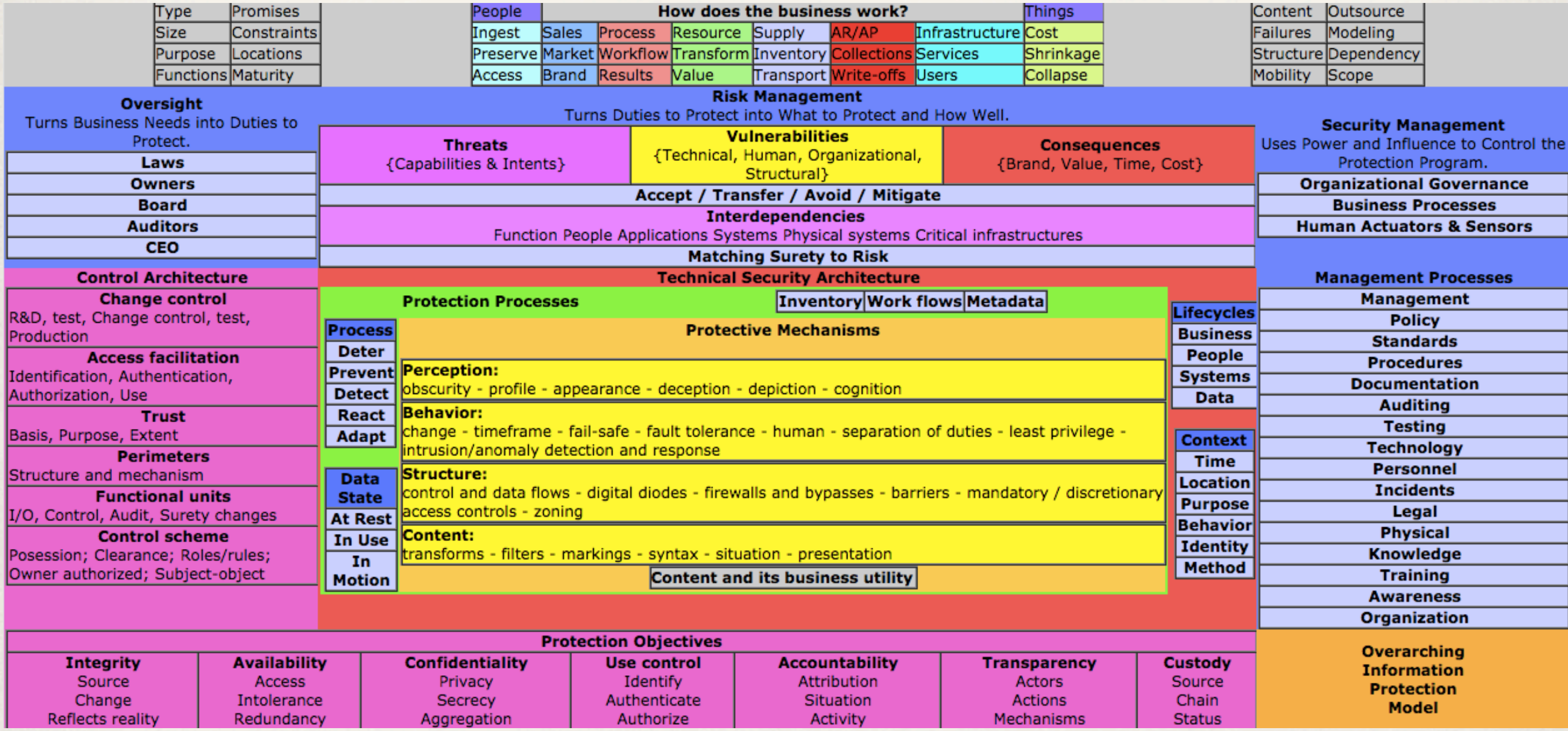
- Neither a standard nor a practice,

  but a decision-making methodology used to help professionals determine reasonable and prudent courses of action

- Identifies whether someone acted with diligence or negligence

- Allows professionals to ask reasonably comprehensive questions

3. Development. Draft ARM SoP



The Archival Information Protection Model

3. Example. Management: Policy

What information security policies are needed and used?

Question

Decision appropriate for given circumstance

Decision

Option 1: No security policies at all.
Option 2: Acceptable use policies.
Option 3: Legal and regulatory related policies.
Option 4: A wide array of standards-based and other policies.
Option 5: A policy based on a single well-recognized standard.

Options

Basis:

Definitions of options and other pertinent information

Basis

4. Standards & Literature Compared

- *Aboriginal and Torres Strait Islander Library, Information, and Resource Network Protocols (ATSILIRN)*
- *Audit and Certification of Trustworthy Digital Repositories (ISO 16363)*
- *Data Seal of Approval Guidelines (DSA)*
- *DRAMBORA: Digital Repository Audit Method Based on Risk Assessment* toolkit
- *ICA Principles of Access to Archives: Technical Guidance on Managing Archives with Restrictions*
- *InterPARES 2: Benchmark Requirements Supporting the Presumption of Authenticity and Baseline Requirements Supporting the Production of Authentic Copies of Electronic Records*

4. Standards & Literature con't

- *ISO/IEC 14721:2012 Space data and information transfer systems -- Open archival information system (OAIS) – Reference model.*

- *ISO 15489:2001 Information and documentation -- Records management*

- *Nestor Seal for Trustworthy Digital Archives*

- *PREMIS Data Dictionary for Preservation Metadata*

- *SPOT (Simple Property-Oriented Threat) Model* for repository risk assessment

5. Conclusions

- Methodological risk management and computer security are generally secondary to archival management in the ARM literature

- Maturity (how processes are defined, documented and maintained) and risk levels are not currently taken into full account

- The SoP takes more granular approach than most of the ARM literature reviewed:

  - Practical recommendations about specific operations and processes in IP systems

  - Based on the circumstances and context of the institution

6. Current Steps & Outcomes

Done:

- Literature review, SoP open source initial draft, report on which this presentation is based

Ongoing:

- Application of the ARM SoP to organizations via interviews for identifying consensus (or lack thereof)

Next:

- Use the study to adapt the SoP and build consensus around standards of practice

Questions?

Please contact me at gehurley@mta.ca if you'd like to participate!

Visit http://all.net/SoP/Archives/ for the draft Archives SoP

References

- Duranti, Luciana. “Historical Documentary Memory in the Cloud: An Oxymoron or the Inescapable Future?” *Revista D'arxius* (2013), p. 19-60.

- InterPARES. “Archives.” *The InterPARES 2 Project Dictionar*y. Oct. 16, 2014. http://www.interpares.org/ip2/display_file.cfm?doc=ip2_glossary.pdf&CFID=5647158&CFTOKEN=31199803

- Saltzer, Jerome H., and Michael D. Schroeder. "The protection of information in computer systems." *Proceedings of the IEEE* 63, no. 9 (1975): 1278-1308.

- van Biene-Hershey, Margaret. "IT security and IT Auditing Between 1960 and 2000." In *The History of Information Security: a Comprehensive Handbook*. Ed. Karl de Leeuw, Maria Michael, and Jan Bergstra, 665-680. Boston: Elsevier, 2007.