

# InterPARES 3 Project

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TEAM Canada

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## Case Study Report

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## Case Study Report

### Overview

The British Columbia Institute of Technology (BCIT) was established in 1961 and merged with the British Columbia Vocational School in 1968. BCIT is a degree-granting, post-secondary educational institution that confers technical and vocational baccalaureate degrees and diplomas. The Institute has five campuses in the Vancouver area, comprising more than 1,600 full-time faculty, 600 part-time faculty and approximately 16,000 students.

BCIT has more than 100 million digital records created and used by all departments and administrative offices. Although these records are subject to the same retention and disposition schedules that apply to BCIT's paper records, only a small percentage of BCIT's departments and administrative offices actually apply the schedules to digital records. The digital records are not only essential for the daily activities and procedures of the Institute, they also contribute to its growing history.

At the beginning of the case study, BCIT currently had two policies related to records management and archival management: Records Management (policy no. 6701) and Archives and Special Collections (policy no. 6702). A records retention schedule identifies both digital and hard copy records that have long-term and permanent retention in the BCIT Archives. BCIT had an established procedure to assure the long-term and permanent preservation of records in paper and film formats; however, no policy or procedure currently existed concerning the long-term and permanent preservation of digital records. These important records, which are considered vital to BCIT's history, were at risk of being lost through technology obsolescence and lack of consistent management.

BCIT approached InterPARES in 2007 seeking the development of a rigorous policy for digital records preservation that: (1) defines how digital records are to be managed once they are no longer in their active state and (2) is tailored to the unique needs of the BCIT records management and archives programs. BCIT's goal was to describe "what" should happen with regard to digital records preservation.

BCIT also sought the development of procedures that would allow this policy to be carried out. These would include the definition of the responsibilities, activities and achievable outcomes necessary to make the policy fully operational. Thus, the main objectives of CS01 were to devise a policy and to design a set of procedures that ensure the long-term preservation of BCIT's digital records.<sup>1</sup>

It was agreed in the May 2008 TEAM Canada Plenary Workshop that the policy needed to be institution-wide and that it should address the preserver principles as outlined in the InterPARES 2 Policy

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<sup>1</sup> Information taken from "InterPARES 3 Digital Records Preservation Proposals," BCIT Library. November, 16, 2007. Available at [http://www.interpares.org/ip3/display\\_file.cfm?doc=ip3\\_canada\\_bcit\\_research\\_proposals\\_1-2.pdf](http://www.interpares.org/ip3/display_file.cfm?doc=ip3_canada_bcit_research_proposals_1-2.pdf).

Framework.<sup>2</sup> It should also give some procedural autonomy to individual departments while addressing some of the general procedural issues and concerns that apply to all BCIT departments. It was suggested that the policy should explicitly state that the BCIT Archives provides guidance on management of the records.<sup>3</sup>

Through the course of the case study, restructuring at BCIT resulted in the temporary closure of the Archives, and the loss of the Archivist position. Despite this setback, the Associate Director, Privacy and Records Management, and the graduate research assistants agreed that the responsibilities of the Archivist should remain clearly articulated in the policy.

## **Methodology**

This case study followed the general case study methodology determined by InterPARES. Semi-structured interview protocols were developed by the Project Director and researchers for each type of case study. Protocols were designed to gather the necessary information about each test bed to support the research for that test bed. For BCIT, this involved conducting a detailed contextual analysis, and administering a set of record-keeping system research questions and policy research questions. The data gathered through these instruments provided the basis upon which to design the strategy for developing policy and procedures for BCIT. Once these standardized questionnaires had been administered, the graduate research assistants, in conjunction with Patricia Daum, Associate Director, Privacy and records Management, developed focused interview protocols for each department to determine the level of awareness of digital preservation issues and the procedures in place at the department level. These data were measured against the InterPARES Benchmark and Baseline requirements for the creation and preservation of authentic reliable records to conduct a gap analysis to determine deficiencies in current practice. The policy and subsequent procedures were developed using the InterPARES Framework of Principles for the Development of Policies, Strategies and Standards for the Long-term Preservation of Digital Records as a guide for content that reflected best practice, and existing BCIT records management policy and procedures as a guide for form. Each stage of the research was an iterative process conducted by the graduate research assistants and BCIT's Associate Director, and Archivist.

## **Contextual Analysis<sup>4</sup>**

*The information in this section is essential to understanding the test-bed. The focus of the analysis is the immediate administrative context of the case study.*

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<sup>2</sup> Available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_19.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_19.pdf).

<sup>3</sup> InterPARES 3 Project, "TEAM Canada Plenary Workshop #02: Workshop Proceedings," 4-5.

<sup>4</sup> The Contextual Analysis was conducted in late 2007. As much as possible, the original text has been retained in this report. Updated information has been added as appropriate to reflect changes in the test-bed that affect BCIT's records management.

### **Name**

The British Columbia Institute of Technology (BCIT).

### **Location**

The main campus is located at 3700 Willingdon Avenue, Burnaby, British Columbia, Canada, V5G 3H2. BCIT also has several satellite campus locations, including Downtown Vancouver, Marine (North Vancouver), Great Northern Way (Vancouver), as well as the Aerospace Technology Campuses, located in Richmond and Kelowna, British Columbia.

### **Origins**

- 1960 British Columbia Vocational School (BCVS) opened at Willingdon Avenue and Canada Way in Burnaby
- 1961 Plans were announced to establish BCIT
- 1962 the first Principal of BCIT was appointed
- 1964 the first students were on campus: 498 in total, studying engineering, health and business
- 1978 BCVS and the Haney Educational Centre were amalgamated to form the Pacific Vocational Institute (PVI)
- 1986 PVI merged with BCIT
- 1994 Pacific Marine Training Institute amalgamated with BCIT under the School of Trades Training to become the BCIT Marine Campus
- 2004 the number of students at BCIT reached more than 48,000; the institutional mandate broadened to include additional courses of study as well as applied research, and the Institute's Polytechnic status is established by legislation.

### **Legal Status**

BCIT is a degree-granting, post-secondary educational institution incorporated under the *BC College and Institute Act* (RSBC 1996 ch. 52). As such, it is given the authority to confer applied technical and vocational baccalaureate degrees and diplomas by the provincial government of British Columbia. BCIT was previously incorporated under the *BC Institute of Technology Act*, which was repealed in 2004 by the *College and Institute Amendment Act*.

As a public institution, BCIT is governed the *BC Freedom of Information and Protection of Privacy Act*, or FOIPOP (RSBC 1996 ch. 165). In accordance with this legislation, BCIT will collect personal information only directly from the “individual about whom it pertains,” protect this information from disclosure, use this information for stated purposes and retain personal information only as long as required for these stated purposes.<sup>5</sup> Further, the Institute is required to provide individuals the right to access and request corrections to personal information in its possession. BCIT's policy 6700, “Freedom of Information and Protection of Privacy,” provides information as to the Institute's policies and procedures relating to FOIPOP administration.

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<sup>5</sup> For more information, see <http://www.bcit.ca/privacy/> and <http://www.bcit.ca/foipop/> (Accessed 18 December 2007).

At the federal level, BCIT is committed to full compliance with the *Personal Information Protection and Electronic Documents Act*, which defines the characteristics that must be present in electronic records management systems for information contained within those systems to be considered as evidence admissible in court.

### ***Norms***

BCIT maintains and adheres to its own extensive and rigorous set of policies and procedures governing all aspects of its daily operations and administration. These policies are divided into the following categories: Human Resources, Financial Services, Purchasing, Facilities Management and Campus Planning, Information Technology Services, the Registrar, Education, Student Services, Research, the BCIT Foundation, Marketing and Communications, and General Administration. BCIT's records management policies and procedures fall under the Student Services category.

Certain research groups within the institution have achieved (or are working towards achieving) ISO certification within their respective fields. For example, the Health Technology Research Group, which develops and evaluates medical/assistive devices, has implemented compliance with ISO 13485 in accordance with a mandate issued by Health Canada that all manufacturers of medical equipment comply with this standard.<sup>6</sup>

The Information Technology Services (ITS) department has issued a "Responsible Use of Information Technology" policy (no. 3501) that defines appropriate use of BCIT's information technology resources for students, faculty and staff. This policy states that information technology services and resources are "intended to serve the educational, research, and administrative purposes of the Institute" and to do so through compliance with applicable BCIT policies, procedures and "all applicable Federal, Provincial, and local laws and statutes," including copyright and FOIPOP legislation as well as software licenses where appropriate.<sup>7</sup> ITS revised its usage policy to address issues of information technology and developed its first information security policy in 2009. ITS has been upgrading information security since passage of the information security policy. An Information Security Committee comprised of the Safety and Security Director, Internal Auditor, Manager of Revenue, and the Associate Director Privacy and Records Management liaises with ITS on information security matters.

BCIT has several policies and corresponding business procedures devoted to archives and records management. These include Policy 6700 "Freedom of Information and Protection of Privacy," Policy 6701 "Records Management," and Policy 6702 "Archives and Special Collections." In addition to these policies, the Institute maintains a *Records Management Guidebook*, which contains BCIT policies and

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<sup>6</sup> For more information on the Health Technology Research Group, see <http://www.bcit.ca/appliedresearch/health/> (Accessed 24 January 2008).

<sup>7</sup> See <http://www.bcit.ca/files/pdf/policies/3501.pdf> and <http://www.bcit.ca/files/pdf/policies/3502.pdf> (Accessed 25 March 2012).

procedures relevant to records management as well as the organization-wide *Directory of Records*, which provides a classification scheme as well as retention and disposition schedules for all series of records created or received by the Institute.

According to the Institute's Records Management Procedures (no. 6701), BCIT is committed to compliance with industry standards such as the Canadian General Standards Board (CGSB) "Electronic Records as Documentary Evidence Standard" (CAN/CGSB-72.34) and ISO 15489. The Institute treats these standards as models for "best practice;" as such, it does not presently claim full, organization-wide compliance with these standards, although compliance is a goal being worked towards on an ongoing basis.

BCIT's archives are arranged and described according to the *Canadian Rules for Archival Description*.<sup>8</sup> In 2012 funding was obtained to purchase a module of the Library's bibliographic system, Content Pro. When the data are migrated from the pre-existing system (InMagic), the description will be based on a more simplified methodology that is better suited for end user searching. Finding aids and digital content will be made available through the Archives website.

Archival documents are made available to the public in accordance with FOIPOP legislation and the Copyright Act, as well as any agreements made between the creator and/or donor of the records with BCIT. The physical integrity of the archival materials is also taken into account when public access is provided.

In addition to the norms, policies and procedures pertaining to the Institute's records management program, the institution as a whole adheres to a wide range of industry norms related to its teaching and research activities, in each of the various disciplines that are associated with the institution. These disciplines include (but are not necessarily limited to) training in Business and Media; Computing and Information Technology; Engineering, Applied and Natural Sciences; Health Sciences; and Trades/Apprenticeship. The Aerospace Technology and Marine campuses are accredited by Transport Canada for their work in their respective fields, and the Canadian Technology Accreditation Board (CTAB) accredits more than 35 of the engineering programs offered at BCIT.

### ***Funding***

BCIT is financed by student fees and tuition, transfers from the provincial government, private donations through the BCIT Foundation, investment revenue, revenue from businesses on site, rental agreements, industry training revenue and funding from various public and private research grants.

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<sup>8</sup> During the course of the case study, BCIT eliminated the position of Archivist, thus forcing temporary closure of the Archives per union requirements. In consultation with the Associate Director, Privacy and Records Management, the graduate research assistants retained a role for the Archivist in the policy and procedures. In 2012, BCIT re-instituted the Archivist position at 40% of a staff FTE.



### ***Physical Resources***

BCIT has five campuses (see “Location” section above). Each campus offers specialized facilities and equipment suited to the particular educational program(s) offered at that campus; for example, the North Vancouver (Marine) campus is the location of BCIT’s various marine and nautical courses and programs, as it is located with convenient proximity to Vancouver Harbour. The campus at 3700 Willingdon Avenue, Burnaby, is the main campus, where the Institute’s administration is based, as well as the main BCIT library and many of the Institute’s programs and courses. BCIT also teaches courses at several satellite locations, located both within and outside of the Lower Mainland. The Institute’s administration is centralized and all branches, programs and associated satellite campuses adhere to the same institutional policies.

BCIT has a developed information technology infrastructure and a capable support staff.

### ***Governance***<sup>9</sup>

BCIT is administered by a Board of Governors (see Appendix 2), in accordance with the *College and Institute Act*. The composition of the Board is defined by this legislation. Further to the requirements of the *College and Institute Act*, BCIT’s academic policies and curriculum content are established by the Education Council. The composition of the Education Council is also defined by the Institute’s enabling legislation. The Council is accountable to the Board of Governors, and the Board is accountable to the Minister of Advanced Education, Training and Technology.

The Board of Governors consists of eight members appointed by the provincial government, one faculty member elected by the faculty, one support staff member elected by administrative staff, and two student representatives elected by the student body. The President of BCIT and the Chair of the Education Council are non-voting members of the Board. The responsibilities of the Board of Governors generally include managing and administering the Institute’s finances and physical property, as well the determining the courses of study to be offered at BCIT.

The Education Council is elected annually, with the exception of the President of BCIT and the President of the Student Association, who are non-voting members of Council. The Council serves an advisory role to the Board on academic policies and educational programs offered by the Institute.

The Council and the Board establish and maintain their own respective bylaws and standing procedures guiding their activities. Broadly stated, major and substantive policy decisions, particularly with regard to the educational policy of the Institute, must be jointly agreed upon by the Board and Council.

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<sup>9</sup> See attached Organizational Charts in appendices 1-4. Organizational charts are also available on the BCIT Web site: <http://www.bcit.ca/about/orgcharts.shtml> (Accessed 31 January 2008).

BCIT employs 1,640 full-time staff and faculty, as well as 612 part-time staff and faculty. Approximately 16,000 students are enrolled full-time and about twice as many students attend BCIT on a part-time basis.

Staff and faculty of the Institute are qualified in their respective fields; these qualifications vary widely according to the schools and associated courses of study offered by BCIT. Most faculty members and members of the Board and Council hold advanced degrees in science, technology, or education.

### ***Vision and Mandate***

In 2009-2010, BCIT's executive team ("the Leadership Team") employed a collaborative process to update its vision, strategy, and mandate. The results of this process are published on BCIT's website.<sup>10</sup>

#### **Vision**

BCIT: Integral to the economic, social and environmental prosperity of British Columbia.

#### **Mission**

The mission of BCIT is to serve the success of learners and employers:

- by providing high quality technical and professional education and training that supports our graduates as practitioners and as citizens; and
- by advancing the state-of-practice.

#### **Mandate**

- BCIT's foundation is comprised of certificates, diplomas and degrees – the entry-to-practice credentials that lead to rewarding careers. These are enhanced by programs and courses that are coordinated with career development and growth of the practitioner, and include industry services, advanced studies and continuing education.
- BCIT offers experiential and contextual teaching and learning with the interdisciplinary experiences that model the evolving work environment.
- BCIT conducts applied research to enhance the learner experience and advance the state-of-practice.
- BCIT exercises its provincial mandate by collaborating with the post-secondary system and employers in activities that improve learner access and success.

#### **Commitments to our Stakeholders**

BCIT is committed to:

- providing a learner experience that supports learners as individuals, provides superior returns on their investment, and actively supports lifetime career success;
- the success of employers by educating and training practitioners capable of being immediately productive, being a source of new ideas, and advancing the state-of-practice;
- being responsive and adaptive to the evolving needs of British Columbia; and
- prudently stewarding resources entrusted to it in a manner that provides the citizens of British Columbia with the best possible return on their investments.

#### **Commitments to Ourselves**

BCIT is committed to:

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<sup>10</sup> "About the Institute: BCIT Guiding Statements," [www.bcit.ca](http://www.bcit.ca), accessed March 25, 2012.

- valuing employees as individuals by supporting their ambitions, encouraging their development, recognizing their achievements and promoting their well-being. We understand that we are the primary determinants of BCIT's future and success;
- continuous improvement and performance measurement. We will constantly ask ourselves how we define success, measure our results, and improve performance;
- a culture of team work. Our decision-making processes are transparent and based on engagement with stakeholders. We will share our challenges and celebrate our successes; and
- a sustainable financial strategy that will ensure BCIT is appropriately resourced. This will entail actively pursuing public and private funding, developing entrepreneurial approaches aligned with our mandate, and making the decisions necessary to support the things that we do best.

The BCIT Institute Service Plan provides a more detailed definition, outlining the defining characteristics of a polytechnic institution in Canada. The definition that the Service Plan provides is the same definition agreed upon by the Association of Canadian Public Polytechnic Institutes, or ACPPI.<sup>11</sup> According to the ACPPI, polytechnic education has five salient characteristics:<sup>12</sup>

- partnerships with industry
- delivery of polytechnic education up to and including degrees of an applied nature to the bachelor or graduate degree levels
- applied research and development
- polytechnic education and applied research nationally and internationally
- the size and resources to make a significant contribution to the students, employers and the economy of their provinces

Further to the institution's mission, mandate and educational philosophy, BCIT consists of six schools of study. These include the School of Business; School of Computing and Academic Studies; School of Construction and the Environment; School of Health Sciences; School of Manufacturing, Electronics and Industrial Processes; and the School of Transportation. Each of these individual schools offers a diverse range of applied degree programs and/or diplomas in a broad variety of fields and disciplines associated with that school. For example, the School of Construction and the Environment confers degrees in Construction Management, Civil Engineering and other related fields of study.

### ***Mission***

See above.

### ***Policy***

Not specified.

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<sup>11</sup> The founding members of the ACPPI are the British Columbia Institute of Technology, Southern Alberta Institute of Technology, Northern Alberta Institute of Technology, Conestoga College, Sheridan College, Humber College, Seneca College, and George Brown College. These institutions jointly developed the "Polytechnic Agenda" as described here, in June of 2003.

<sup>12</sup> This text is drawn from the BCIT *Institute Service Plan: 2004/05 to 2006/07*, p. 8. Available at [http://www.bcit.ca/files/newsreleases/pdf/service\\_plan.pdf](http://www.bcit.ca/files/newsreleases/pdf/service_plan.pdf) (Accessed 23 January 2008).

### ***Functions***

BCIT undertakes a wide range of functions in accordance with its mission, mandate and institutional objectives as outlined in enabling legislation. Broadly stated, these functions include, but are not limited to, education, training, conducting applied research, as well as general administration of its physical, financial and human resources.

The attached organizational charts will help to further clarify the general functions of BCIT for example administrative services such as enrollment planning, student services, human resources, financial administration and technology services.

### ***Recognitions***

Each year, BCIT grants awards and recognition to its distinguished students, faculty and staff. The Institute also grants a significant amount of financial assistance to students with outstanding academic achievements and/or financial need.

China's National Office for Teaching Chinese as a Foreign Language has awarded BCIT the first Confucius Institute in Canada—as such, BCIT was chosen by the government of China as a site for teaching its country's languages and culture to facilitate international trade and tourism.<sup>13</sup> These activities are carried out at the Downtown campus location.

The various Schools of BCIT are frequently recognized for achievements in their respective fields. For example, the United Nations has recently recognized BCIT's Mark Angelo, head of the Institute's Fish, Wildlife, and Recreation Program, with an International Year of Fresh Water Science, Education and Conservation Award, for his research and work in the field.<sup>14</sup>

In addition, the Canada Foundation for Innovation (CFI) has recently awarded grant funding to researchers at BCIT's School of Health Sciences to study the effects and safety of natural health products. A portion of the awarded funds will go towards the construction of the Integrated Molecular Biology Laboratory (IMBL) to facilitate the study of these products.<sup>15</sup>

### **Activities Resulting in the Creation of the Relevant Records**

*This section is divided into two sub-sections. The first concerns the Administrative and Managerial Framework within which the relevant digital records are created. The second focuses on the digital records themselves. Both sub-sections aim to gather information to allow the characterization of the types of activities and records that are the test-bed's concern*

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<sup>13</sup> See <http://www.bcit.ca/news/releases/newsrelease090205299.shtml> (Accessed 21 December 2007).

<sup>14</sup> See <http://www.asianpacificpost.com/portal2/402881910674ebab010674f4eb9c15ab.do.html> (Accessed 21 December 2007).

<sup>15</sup> See [http://www.lifesciencesbc.ca/News/Member\\_Press\\_Releases/pr07120701.asp](http://www.lifesciencesbc.ca/News/Member_Press_Releases/pr07120701.asp) (Accessed 21 December 2007).

## ***Administrative and Managerial Framework***

### **General description**

Digital records are created and used at the institution in all departments and at all levels of administration for a variety of business purposes and in many file formats. More than 100 million digital records currently exist throughout the entire Institute's information technology infrastructure. All of these digital records are subject to the same retention and disposition schedule as applies to hardcopy records (defined in the institution-wide *Directory of Records*). However, all digital records may not necessarily have paper-based counterparts; as of December 2007, a document has been drafted that outlines a proposed disposition schedule for certain records that exist only in digital format (such as blogs or records associated with distance education courses<sup>16</sup>). The 2012 *Directory of Records* was published with retention schedules for email, LAN documents, and other electronic records series.

Policies and procedures for transfer of these records to a trusted repository, as well as the nature of the e-records repository itself, are yet to be determined. Overall, less than 1% of the whole of BCIT's digital records are controlled; this control is achieved through pointers in a database (see the paragraph on Lotus Notes software below).

Individual departments at BCIT may have the autonomy to implement or purchase their own software systems for database and information management depending on their business needs.<sup>17</sup> One such example of a department-level information management system is the ARCHIBUS software suite, utilized by the Facilities Management department. The following explanatory text is drawn directly from the ARCHIBUS Web site: "ARCHIBUS is a complete, integrated suite of applications that addresses all aspects of facilities and infrastructure management. The system is fully integrated with industry-standard AutoCAD®, ensuring that changes made to drawings are simultaneously reflected in the ARCHIBUS database."<sup>18</sup>

In addition, BCIT runs the "Banner" higher education software suite, produced by Sungard, to integrate its administrative activities. These activities include student information management, finance and human resources. Banner also provides a system in which approximately 150,000 paper records are indexed.

BCIT also runs IBM's Lotus Notes software for e-mail, calendar and instant messaging services. This software also offers some file sharing capabilities through the use of "document libraries." Lotus Notes provides some Intranet capabilities, but for the most part, files/records are dispersed across the

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<sup>16</sup> Web CT, in use when the contextual analysis was conducted, was replaced by the D2L software for distance education delivery in 2008.

<sup>17</sup> Since 2007 IT governance has been a focal point of the administration and the purchase and implementation of computer based systems has been more methodically approached, based on development and review of a strong business case.

<sup>18</sup> See <http://www.archibus.com/products/> (Accessed 7 January 2008).

organization on individual computers. (In other words, Lotus Notes is not an organization-wide information management system and BCIT does not use it in this way.) In 2011-2012, BCIT converted its email and calendar application to MS Outlook. BCIT employees however, have to retain Lotus Notes client applications on their desktop because more than 100 workflows have been automated with Lotus Notes (including the records management application, catering requests, facilities work requests, and others). As IBM will phase out support for Lotus Notes, BCIT has a two-year window to convert the databases and workflows now programmed in Lotus Notes to another system.

BCIT purchased SharePoint in 2008 and has deployed one library at the ATC campus for important compliance records. Governance for the SharePoint technology has been lacking. Records management has attempted to play a role in the SP goals without much success. It is probable that SharePoint will be programmed so that an enterprise-wide electronic records centre will simulate features of an electronic records keeping system.

BCIT's Registrar's Office purchased the EMC Documentum imaging software system in the 2007-08 fiscal year for the Admissions department. In 2010, the International Credential Evaluation Services department purchased and installed this system and is in the process of converting its paper files to the electronic format. Documentum is closely integrated with the Banner system (which is the enterprise resources application providing HR, Finance, and student records keeping). At some future date, this software could be expanded to manage finance, human resources, and other records series. The Privacy and Records Management office has proposed purchase of an electronic records management system in recent years, but funds have not been available to provide an enterprise-wide content management system for active digital document/records management and document imaging capabilities for use across the entire organization.

The current implementation of various proprietary software packages throughout the institution has made the integration of these systems somewhat problematic, resulting in some difficulties related to the archival management of records these systems contain.

### **Type of activities**

Digital records are created by all departments and at all levels of administration across the Institute. Consequently, all types of activities are undertaken that result in the creation and use of digital records, including but not limited to operational, administrative and educational/academic activities.

Specifically, examples of records created and used exclusively in digital format include e-mail, blogs, WebCT records and the public Web site. E-mail is used commonly throughout the organization; again, individual users are responsible for declaring and submitting all official records of the Institute to the appropriate repository, although in the case of e-mail, this seldom occurs in practice. Generally, there

is a lack of awareness among staff as to the nature of e-mail as an official BCIT record, in part because on a daily basis the majority of e-mail sent and received is transitory. This results in staff generally not making the distinction between transitory and substantive e-mail while using it to conduct their regular business affairs. Additionally, there is no simple technological mechanism currently in place to facilitate the declaration and registration of e-mail as a record, even if it were identified as such by an individual staff member.

Blogs are considered of lasting value when their use coincides with official BCIT business, such as when their creation and use is curriculum-based. Further analysis of the public Web site is required; however, portions of public Web content are considered a priority for long-term, archival preservation.

### **Documents resulting from activities**

The test-bed proposal provides instances of a variety of digital records that are of concern to BCIT as they are considered vital to the Institute's history and are at risk of being lost due to technological obsolescence. These records include Program Advisory Committee minutes, Board of Governor Minutes, BCIT policies, Education Council Minutes, program change proposals and approvals, the public Web site and others.<sup>19</sup> Public Web content is considered particularly vulnerable to loss and is a high priority for preservation.

### **Existence of a records management program**

There is an integrated records management/FOIPOP program as well as an archives program at BCIT. The Institute's policies 6701 and 6702 govern records and archives respectively. Corresponding procedures describe official business procedures for implementing the institution's records management, FOIPOP and archives policies. The records management/FOIPOP and archives programs are departments under the administration of the BCIT Library. The records management program is concerned primarily with the management of active and semi-active records of the institution, as well as administering Freedom of Information requests and ensuring that the Institute is compliant with all relevant federal and provincial legislation. BCIT's archives program is concerned primarily with preserving the inactive documentary history of the Institute and providing public access, as appropriate, to its holdings.

BCIT's website has a collection of pages that describe its records management and FOIPOP programs. A 6-minute video was produced in 2009 that provides an introduction to records management and is well used in training and other seminars.<sup>20</sup>

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<sup>19</sup> Examples taken from "InterPARES 3 Digital Records Preservation Proposals," prepared by the BCIT Library, 16 November 2007.

<sup>20</sup> See [www.bcit.ca/foipop/](http://www.bcit.ca/foipop/) and [www.bcit.ca/recordsmanagement/](http://www.bcit.ca/recordsmanagement/).

BCIT maintains a *Directory of Records*, which defines the retention and disposition schedules for all records series created and used by the Institute as a whole. The Directory states which records are to be destroyed at the end of their designated retention periods and which records series are of lasting value for archival preservation. In addition, the *BCIT Records Management Guidebook* contains all of the relevant policies and procedures associated with records management and FOIPOP administration, as well as an up-to-date *Directory of Records*.

The key staff contacts responsible for the records management and archives programs are:

- Patricia Daum, MLS, MBA, CRM. Associate Director, Privacy and Records Management.
- Deidre Brocklehurst, Archivist (position eliminated due to budget cutbacks in 2010).
- Elizabeth Padilla, MLIS. Archivist (part-time position re-established in 2012).
- David Pepper, BA, MLS. Director, Library Services. (David Pepper oversees the records management and archives programs.)

### **Individuals responsible for records maintenance**

Each individual department or school is responsible for its own records maintenance activities. Every department has a “key contact” for FOI and records management purposes; the Dean or manager of each department delegates responsibility to one or more departmental “records custodian(s),” who in turn liaises with the department’s “key contact” to locate records in the event of a formal FOI request or in case of litigation. The administrative hierarchy for departmental records management activities proceeds as follows, from:

1. the department’s Manager, Dean, or Director, to
2. the departmental Records Management/FOIPOP contact, to
3. the department’s Records Custodian, and finally to
4. individual BCIT employees.

These activities are carried out under the guidance and training of the Associate Director, Privacy and Records Management, and are subject to periodic audit for compliance with institutional policy.

The following text, quoted directly from the *BCIT Records Management Guidebook* (revised September 2006), describes in more detail the respective roles and responsibilities of the records management office, deans and directors, records management/FOIPOP contacts, records custodians and individual employees within in each department:<sup>21</sup>

#### *Deans and Directors*

BCIT’s deans and department directors/managers have the responsibility to ensure that records management and privacy protection procedures are implemented within the schools and departments. Deans and directors are responsible for compliance with the records retention schedules. Deans and directors/managers are responsible for suspending the records retention schedule for records within a case file, should there be active or pending litigation or audit.

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<sup>21</sup> See *BCIT Records Management Guidebook*, sec. 2.0, pp. 4–5. (Revised September 2006)



### *Records Management Office*

The Records Management Office, located in the BCIT Library, has overall responsibility for records management and privacy protection. The responsibilities of this office include:

- maintaining BCIT's *Directory of Records* and its database application (Lotus Notes)
- managing BCIT's low-use records offsite and in campus storage locations
- administering the records disposition processes
- responding to formal access to information requests
- assuring privacy protection in new or revised BCIT processes
- responding to privacy complaints
- training and advising BCIT staff in records management and privacy protection practices.

### *Records Management/FOIPOP Contact*

Each BCIT school and department has a designated Records Management/FOIPOP contact. This contact person will assist the records management office with the retrieval and review of records to fulfill formal FOIPOP requests. The person will be the primary contact for disseminating records management and privacy protection procedures information within departments and schools.

### *Records Custodians*

Records custodians are staff within schools and departments whose positions make them accountable for managing the unit's official records. Custodians will do the following:

- ensure the intellectual and physical control of active and semi-active electronic and paper-based records
- conduct a review of active files for disposition on an annual basis
- prepare semi-active records for storage
- prepare destruction authorization notices and Archives accession notices.

### *BCIT Employees*

Each BCIT staff member is expected to be aware of records management, privacy, and access-to-information policies and procedures. BCIT employees are responsible for creating records in a professional and objective manner, keeping in mind that BCIT records may be accessed in an information request. Employees are responsible for submitting the paper and electronic (non-transitory) records they create to the official repository, as denoted in BCIT's *Directory of Records*.

It is suggested that BCIT staff participate in one 2-hour training session that addresses the basic principles of records management and privacy protection as well as introduces the relevant legislation in these areas. Further, all departmental Records Custodians (approximately 140 employees across the institution) should participate in an additional 4-hour training seminar and complete one-on-one training and online tutorials as needed. There is currently no mechanism to make these courses mandatory. There is also no mechanism at the present time for deans and managers to "sign off" as having read and understood BCIT records management policies and procedures.

## **Existence of maintenance strategies**

Active hardcopy records are kept in the offices of each department. Active digital records are stored on individual computers as well as on shared servers and/or in Lotus Notes document libraries. Semi-active paper records are moved to offsite warehouse facilities where they are stored for the duration of their respective retention periods as defined in the *Directory of Records*. At the conclusion of this retention period, the records are either destroyed or transferred to the BCIT Archives, which is located at the BCIT Library on the Burnaby campus. BCIT contracts with Butler Box and Storage Inc., located in downtown Vancouver, for the offsite storage of semi-active hardcopy records. Processes and procedures for preparing records for offsite storage are thoroughly explained in the *Records Management Guidebook*. Rigorous procedures are in place at both the offsite records facility and the BCIT archives to protect hardcopy records from physical harm. There are 3,300 boxes of semi-active paper records stored offsite at the warehouse and an additional 400 boxes of (finance) semi-active paper records in storage on the BCIT campus. The offsite facility also holds microfilm back up of student records and 300 tubes of BCIT's as built drawings, both of which are vital records collections.

Paper-based records to be destroyed are shredded confidentially by a contracted records shredding company. Certain procedures are followed to ensure safe destruction of paper-based records and these criteria are set forth in the *Records Management Guidebook*. Destruction of digital records (including e-mail) is defined as "deleting the documents from active computer system repositories." However, the *Guidebook* warns, "As BCIT retains back-up tapes, it may take more than one cycle of the back-up process to ensure that an electronic record is actually deleted and no longer accessible." Departmental Records Custodians are expected "at least quarterly each year" to "delete those electronic documents that are no longer required from active information system document repositories."<sup>22</sup>

The final disposition of all records (paper, electronic and film) is indicated in the hardcopy BCIT *Directory of Records* as well as restated in an equivalent *Directory of Records* database. During the active and semi-active phase of records, each department has full ownership and responsibility for its records. Departmental custodianship ends at the expiry of records' retention period, at which time the records in question are either destroyed or ownership is transferred to the archives for indefinite retention.

According to BCIT's Records Management Procedures, digital records are required to be indexed and saved on hard drives in folders/directories (or the equivalent in the case that department-specific software systems are used to store records) according to the same classification scheme as would apply to hardcopy records of the same function. Records such as business contracts, which are required by law to be maintained in paper format, are printed and stored accordingly if no original paper document exists.

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<sup>22</sup> Quoted text drawn from *ibid.*, sec. 2.0, pages 13-14 ("Disposition for Paper, Electronic, and Film Records").

There is no specific repository designated for semi-active digital records. Files on personal and shared drives are duplicated regularly by IT staff onto backup tapes.

The *Records Management Guidebook* states that departments using digital records for ongoing business processes are required to document those business processes that rely on digital records, regularly audit the security of the systems that store these records and document the departmental procedures in place for ensuring the security, audit trail and overall integrity of both the system and the records. Staff are required to ensure that all policies and procedures in place for managing hardcopy records are applied consistently to digital records and, additionally, that an appropriate level of metadata is captured and maintained in a “suitable database.”<sup>23</sup> To prevent problems of technological obsolescence, information related to the hardware and software necessary to recreate the record in the future is presumably to be captured in this metadata, although specific metadata elements as such are not specified.

In practice, however, these digital records management policies and procedures are not carried out consistently at the departmental or individual employee level. Schools and departments of the Institute are expected to integrate the enterprise-wide policies and procedures as defined in the *Records Management Guidebook* with their own procedures, according to their individual business needs. Although some schools or departments have had more success in this regard than others, this is not done consistently throughout the organization; 90% of the Institute’s schools and departments have procedures in place for paper-based records that are compliant with BCIT’s enterprise-wide records management policies and procedures.

### **Legal requirements and constraints**

BCIT is required by law to collect, retain, use and securely maintain only the personal information needed for operations and administration as defined by the *Freedom of Information and Protection of Privacy Act* (FOIPOP). The Institute’s policy 6700 specifically addresses the legal obligations of staff and faculty under the Act and offers advice to BCIT constituents as to the procedures to be followed in complying with the Act. (The following text is drawn directly from BCIT Policy 6700: “Freedom of Information and Protection of Privacy Policy.”)<sup>24</sup>

“Under the Act, BCIT is required to:

- a) properly maintain records at BCIT so as to protect the privacy rights of persons about whom BCIT collects records;
- b) prevent the unauthorized collection, use, or disclosure of personal information;
- c) continue to provide routine information according to past practice, with the *exception of personal information*, which may be released only to the individuals

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<sup>23</sup> See *ibid.*, sec. 2.0, pp. 14–15 (“Management of Electronic Documents”).

<sup>24</sup> BCIT Policy # 6700, “Freedom of Information and Protection of Privacy (FOIPOP) Policy.” Available at <http://www.bcit.ca/files/pdf/policies/6700.pdf> (Accessed 8 January 2008).

- about whom the information relates, or to other parties with an individual's written consent;
- d) provide the public with the right of access to records in the custody of, or under the control of, BCIT,
  - e) provide individuals with the right of access to, and a right to request correction of, personal information about themselves;
  - f) withhold from disclosure certain records as specified in the Act.”

The responsibility for compliance with this legislation resides in every member of staff at BCIT. As such, records management staff conduct training seminars to educate staff as to the specifics of the Act, how to properly create complete records that are verifiable as legal evidence, the circumstances under which collection and use of personal information is appropriate and the provisions of adequate security for records that contain personal information. As previously stated (see Legal Status section, page 2), BCIT is fully committed to compliance with the federal *Personal Information Protection and Electronic Documents Act* (PIPEDA), which sets guidelines electronic records management systems must follow to be recognized in court.

In addition to FOIPOP, the *Privacy Act* is provincial legislation that governs the way in which photographs and personal testimonials (text attributed to identifiable individuals) are collected and used by the Institute. Depending on the circumstances of the collection of this information, BCIT is required in most cases to provide notification to the individual(s) involved and receive their written consent for use of the testimonial or photograph.<sup>25</sup>

The *Personal Information Protection Act* (or PIPA) legislation governs the BCIT Foundation and BCIT Alumni Association. Similar to FOIPOP, PIPA protects individual privacy by requiring private-sector organizations to obtain consent for the collection, use and disclosure of personal information, and it provides individuals with a right to access and/or to correct their own personal information in the custody of a private organization.

### **Ethical requirements and constraints**

According to the Institute's Records Management Procedure (no. 6701), BCIT is committed to compliance with the industry standard Canadian General Standards Board (CGSB) “Electronic Records as Documentary Evidence Standard” (CAN/CGSB-72.34) and ISO 15489. Again, these standards are considered benchmarks; the implementation of an enterprise-wide document management system (Documentum), scheduled to be operational in the Admissions department in 2009, will be a major step towards full compliance with these standards.

Certain scientific and/or artistic requirements and constraints may apply to individual schools or departments according to their respective operational activities, but as this case study applies broadly to

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<sup>25</sup> An exception to this rule is in the case of event photography (photography of awards ceremonies, sporting events, etc.) Refer to *BCIT Records Management Guidebook*, sec. 2.0, page 23. (Revised September 2006)

institution-wide records management policy, it is outside the scope of this report to identify and describe the specific records creating procedures and practices of each individual BCIT school and department.

Issues and concerns related to the appropriate creation and management of records containing personal and confidential information are addressed by the applicable freedom of information/privacy protection legislation. Staff at all levels of the Institute's administration are provided with training as to the proper treatment of such records according to the appropriate legal and ethical standards. Staff are educated as to what constitutes personal information and they are instructed on the procedures for ensuring the security and confidentiality of records containing this information. The Institute's expectations regarding the ethical treatment of records containing personal information is made explicit in Policy 6700, "Freedom of Information and Protection of Privacy Policy." This policy also defines roles and responsibilities of staff at various levels in the event of a formal FOIPOP request by the public. In general, the release of any personal information, with the exception of internal communication of this information, is strictly prohibited. Staff of BCIT may direct any questions or concerns regarding records and privacy protection to the Associate Director, Privacy and Records Management, who will advise staff in this regard. Informal requests for public information are handled on a case-by-case basis according to the policies of each individual department or school; a formal FOI request is automatically triggered when no explicit departmental procedure exists governing a specific request for information, or if a request for information spans the jurisdiction of multiple departments.

### **Technological requirements and constraints**

At the time these data were collected, individual schools and departments may have been able to purchase and implement their own electronic information management systems and databases according to their individual budgets and business needs. These systems may have been implemented with or without the sanction of IT Services; in either case, ITS was often challenged to provide support for all of these locally purchased systems. IT governance has undergone significant change in the past four years, and the BCIT Executive (through an IT Governance Committee) now maintains greater oversight and campus-wide planning of IT systems.

There was little overall communication between these systems across departments with respect to the information they contain. An exception to this was the Lotus Notes software that is used for e-mail, calendar and some file sharing and Intranet capabilities across the entire organization. The Netstorage software application, produced by Novell, allows BCIT staff to access files on the Institute's computers securely and remotely, from any Internet connection in the world. Examples of department specific systems (as described under the previous General Description section, page 8) include the ARCHIBUS software suite utilized by Facilities Management and the Banner software suite utilized by BCIT's central

administrative offices. There is still no organization-wide document management system currently implemented; the results of a cost-benefit analysis conducted in 2003, 2009, and 2010 revealed that there would be significant benefits to the institution if such a system were implemented, but both the funding and managerial commitment to such an enterprise were lacking at that time.

BCIT has a staff of more than 120 specialized IT service professionals. IT Services at BCIT is organized into several branches, each with its own service area. These include a team dedicated to supporting and maintaining the technical network infrastructure of the Institute, a team dedicated to supporting and servicing business software applications used by the Institute, and a team dedicated to providing customer/client support to students, faculty, staff and other users of BCIT's information technology infrastructure. As no comprehensive digital preservation policy currently exists, technological and financial resources are not yet being committed to implementing digital archival systems.

Digital records/components are stored on networked hard drives connected via LAN. BCIT records may also be stored on portable storage devices, on BCIT-owned laptop computers, or on employee-owned computers; in these situations, staff are reminded that documents used in the conduct of official BCIT business remain the official records of BCIT and that, as property of the Institute, the documents are subject to BCIT records management policy. There is a separate server dedicated to the storage of active audiovisual digital components used for various purposes throughout the Institute.

Through a \$25 million investment in hardware, software, and staffing, ITS partnered with the Learning and Teaching Centre (LTC) on a five-year undertaking called the Technology-Enabled Knowledge (or TEK) Initiative. The TEK Initiative was an “umbrella term for an array of integrated projects that will place new and existing technologies in the hands of our teachers and students, and provide them with the support and training to use them effectively.”<sup>26</sup> The TEK Initiative achieved five stated goals:<sup>27</sup>

1. Enhance innovation in teaching and learning
2. Advance the Institute's applied research agenda
3. Connect BCIT to the world
4. Equip our learning spaces with state of the art teaching technologies
5. Improve business practices at BCIT

Further to the goals of this initiative, funding was provided to special projects that seek to enhance teaching and learning as well as to solve problems and improve BCIT's business practices using technology.

Because of the wide range of administrative, operational and educational activities undertaken by the Institute as a whole, a similarly diverse range of digital components are created and used by BCIT (textual, graphical, audiovisual/animation, architectural, Web-based materials and so on).

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<sup>26</sup> Text drawn from <http://www.bcit.ca/tek/whatistek/>. (Accessed 25 January 2008)

<sup>27</sup> Ibid.

Specific software systems and applications that produce, contain, or maintain digital records at BCIT include Drupal (used for blogs, which may or may not be used in some cases for students' course evaluation), Lotus Notes (for staff e-mail), MyBCIT (implemented using Sungard's "Luminis" platform; used for student e-mail, some administrative human resource management purposes) and WebCT. Public Web content is considered a target for preservation and exists in a variety of media and file formats.

Common file formats used at BCIT include those produced by the Microsoft Office suite (MDB, DOC, PPT, XLS), PDF, TIFF, GIF, JPG, Windows Media files and other formats associated with departmental proprietary software systems.

### ***Digital Entity/Entities under Study***

Because of the general nature of this case study (it applies to overarching, organization-wide records management policies and procedures), this section is inapplicable to BCIT as a test-bed. The organization-wide policies and business procedures under consideration in this case study will need to be individually tailored by each school and department according to its situation-specific business needs.

### **Narrative Answers to Policy Research Questions<sup>28</sup>**

1. *How are policies generally developed, and what is the context within which they are being developed (e.g., accountability)?*

Prior to 2008, there were no processes in place that governed policy development at BCIT. However, the Associate Director Privacy and Records Management proposed a project in 2007 that was ultimately approved by the Leadership Team. Records management plays a significant role on the new process that has successfully eliminated more than 20 unnecessary policies and upgraded 60 policies. As of 2012, only a small number of policies remain to be converted to the new process. A policy on policy was approved and can be found at <http://www.bcit.ca/files/pdf/policies/1000.pdf>.

Policies are now developed by individual schools and departments of the Institute and edited by a professional writer. A process to collaborate with stakeholders is defined. These departments are called "content owners," as they are responsible for articulating the content of their respective policies. Policies are submitted to a Policy Review Team and receive a 30-day review process by the BCIT community. After approval by the appropriate body (the Leadership Team for administrative matters and the Board of Governors for strategic and student matters), the Privacy and Records Management office posts (as approved) on the BCIT public web.

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<sup>28</sup> Policy Research questions were conducted in early 2008. As much as possible, the original text has been retained in this report. Updated information has been noted, as appropriate.

The Records Management Office collaborates with a policy review team and departments as policies undergo various stages of review as well as maintain a glossary of terms for use in policy development.

To aid in the policy development process, the Records Management Office has drafted templates to be used by departments and managers in the policy development process. The templates include one for policy, one for procedure, and a style guide for the development of each. A flow chart that stipulates the proposed work flow for BCIT policy and procedure development accompanies the drafted “Policy Development and Maintenance” came into effect in late April 2008. These documents are currently awaiting revision by the Board in April 2012.

- 2. What collaborative efforts (either internal, among units of the organization, or external, in collaboration with other organizations or teams of experts) are made to design and establish a policy?*

Policies at BCIT fall into two basic categories. The first category is referred to as “Student Related,” as these policies pertain to BCIT students, student conduct, academics, and curriculum. The second category could be called “Administrative” policies, as these pertain to all policies that are not directly related to BCIT students or academics. (An example of one such administrative policy would be the Records Management policy.) The distinctions between these two categories are not formal, and a considerable amount of overlap between categories is possible. Examples of overlapping policies might include the Harassment policy and the Appropriate Use of Information Technology policy, as these policies apply equally to the conduct of students as well as faculty and staff.

Policies that are exclusively student related are written by the Education Council and approved by the Board of Governors. The approving body for administrative policies is the President’s Executive Committee, now called the Leadership Team. It consists of all senior managers, executives, and deans of the six BCIT schools.

Administrative policies are currently opened for input from all BCIT constituents (staff and faculty included) on the Intranet prior to being officially accepted. This practice has recently been reviewed and will continue in the future.

The “Proposed Work Flow for BCIT Policy and Procedure Development” (revised February 2008) illustrates the newly proposed business processes for the development of policy.

- 3. Who is responsible for issuing a records/archives policy?*

The Associate Director, Privacy and Records Management, is responsible for issuing records management and archives policy. (In other words, the Records Management and Privacy office is the content owner of these policies.)



Records Management and Privacy is responsible for communicating these policies across the organization and providing necessary training regarding records management and FOIPOP administration. Training documentation issued to staff includes various educational brochures (covering key concepts in records management, privacy protection, and destruction of hardcopy records) and the Records Management Guidebook. This documentation is also made available to all staff on the BCIT Intranet.

4. *Who is responsible for implementing a records/archives policy?*

Deans and directors, departmental records custodians, and individual staff members are responsible for implementing records management policy in the course of their regular business activities. Roles and responsibilities in this regard are outlined in detail in the BCIT Contextual Analysis Report and in the BCIT Records Management Guidebook.

Patricia Daum, Associate Director, Privacy and Records Management, is responsible for communicating the records management and privacy policies as well as providing staff training and education to this end.

5. *What are the procedures for ensuring that all the concerned parties are aware of, comprehend and apply the records/archives policy?*

The Associate Director, Privacy and Records Management, ensures that all concerned parties are aware of and understand records management policy by conducting staff training sessions and tracking departmental compliance with records management policy. There is currently no formal procedure for deans or managers to “sign off” as having read and understood records management policy or for ensuring commitment to compliance with this policy.

According to the Associate Director, Privacy and Records Management, the training and communications responsibilities of the records management office are currently the most effective means to move the institution closer to full implementation. New staff are oriented to records management and FOIPOP policy as a part of their mandatory orientation sessions when hired as new employees. Attendance at certain optional records management training sessions is currently in the process of being made a mandatory part of all employees’ duties, but at this time they are not required to attend (see BCIT Contextual Analysis Report, pages 11–13). Almost all employees attend the New Employee Orientation that was revised in 2008. At this presentation, the Associate Director spends 20 minutes informing new employees about privacy protection, FOI, and records management compliance topics.

6. *Who is responsible for auditing the implementation of the records/archives policy?*

The Associate Director, Privacy and Records Management, is responsible for auditing the implementation of records management policy. In addition, an internal auditor (reporting to the Board) audits compliance and implementation of BCIT operations as directed by the Board.

7. *What is the relationship between the archives and the records creator(s)? (e.g., are they collaborating in records creation and management? If not, does the archives issue a retention and disposition schedule?)*

There is no significant collaboration between Archives and Records Management with creating offices with respect to the creation of records. Records Management does engage with staff to discuss relevant procedural issues and to answer questions as necessary, as well as to identify records in the event of a formal FOIPOP request. In addition, a retention schedule is jointly shared among Archives, Records Management, and all creating offices.

In general, records creating departments are not concerned with the issues associated with digital records maintenance and preservation beyond what affects their immediate business activities. As such, the initiative to address these issues comes from the Records Management and Privacy office.

8. *What is the relationship between units that are involved with records/archives creation and management (e.g., archival and IT personnel, records creating departments and IT)? Do they collaborate? If so, by what means? How frequently?*

IT Services will assume the responsibility for preserving digital materials once a policy for doing so has been established by Records Management and officially issued by the Institute. IT Services and Records Management have established a Joint Committee on E-Records Management, which has recently developed a draft retention and disposition schedule for certain series of digital records produced by the Institute.

Policy 3503 “Data and Records Classification” also represents an example of collaboration between IT Services and Records Management. This policy aims to ensure the security and integrity of all confidential records and data within the Institute’s digital data management systems. (IT Services is the content owner of this policy, as opposed to policies 6700 and 6701, which pertain to FOIPOP and records management, respectively. Content ownership for these policies belongs to Records Management and Privacy.)

9. *To what extent do existing policies, procedures, and standards currently control or influence records creation, maintenance, preservation or use? Do they need to be modified or augmented?*

BCIT has several policies in place that govern records creation, maintenance, and use; these include Policy 6700 “Freedom of Information and Protection of Privacy,” Policy 6701 “Records Management,” Policy 6702 “Archives and Special Collections,” and the draft Policy 3502 “Data and

Records Security.” In addition to these policies the institute maintains a Records Management Guidebook that contains the policies and procedures relevant to records management as well as the institution-wide Directory of Records that defines the retention and disposition schedule for all records (regardless of format) and provides a classification scheme for all series of records created at BCIT.

There is currently no policy in place that governs the preservation of digital records. After such a policy is established, specific business procedures will be developed around the policy.

10. *What legal, moral (e.g., control over artistic expression) or ethical obligations, concerns or issues exist regarding the creation, maintenance, preservation or use of the records?*

As a public body, certain legislation governs BCIT’s records management practices. BCIT is subject to the provincial *Freedom of Information and Protection of Privacy Act* or *FOIPOP*, which requires BCIT to collect, use, and securely maintain only the personal information that is needed for operational and administrative purposes. BCIT policy number 6700 “Freedom of Information and Protection of Privacy Policy” guides staff members on their responsibilities in this area. The BC Privacy Act also governs BCIT actions with regard to photographs of individuals and personal testimonials (text attributed to identifiable individuals). The Act states that use of this type of personal information can only be used with the personal written consent of the individual.

Private organizations that are associated with BCIT but are administered separately and incorporated under the BC Society Act are subject to the Personal Information Protection Act. These organizations include the BCIT Foundation and the BCIT Alumni Association. These two entities must obtain individual consent for the collection, use, and disclosure of personal information, and must be willing to provide individuals with a right to access and / or correct their own personal information in their custody.

The Institute’s “Acceptable Use of Information Technology” Policy #3501 is being revised to address acceptable use of BCIT infrastructure, particularly regarding the use of certain social networking software. From an ethical perspective, all users of BCIT infrastructure are obligated to comply with all relevant BCIT policies as well as federal and provincial legislation regarding copyright and harassment, etc.

Policy 3502 “Information Security” regulates the use and management of institutional data by outlining responsibilities with respect to classifying data and records for security purposes. This policy aims to ensure the security of confidential information, in the form of records or data, contained in BCIT’s electronic information systems.

11. *Does the archives have a record/archives policy for traditional records? If yes, when was it issued and how often is it revisited? If yes, is it fully implemented? If yes, does it fulfill the archives needs and purposes?*

BCIT has several policies and corresponding procedures devoted to archives and records management. These include Policy 6700 “Freedom of Information and Protection of Privacy” (reviewed August 2007), Policy 6701 “Records Management” (reviewed August 2007), and Policy 6702 “Archives and Special Collections” (reviewed 5 April 2007).

Like all BCIT policies, the records management and archives policies are subject to a five year review schedule, unless circumstances dictate a review of the records sooner than the five year norm.

The paper-based records / archives policy implementation is 90% implemented. Records Management and Privacy is working towards 100% implementation by drafting a list of offices that do not yet comply with the policy and educating them on an individual basis. Records management and archives policies, as they are currently implemented, fulfill the Institute’s needs with regard to hardcopy records.

12. *If the archives does not have a records/archives policy, what procedures or informal processes does it carry out to handle transfers of records, to process and preserve them?*

Generally, the classification and disposition schedules defined in the Directory of Records are followed closely and hardcopy records are either transferred to archival custody or destroyed accordingly. Occasionally, an office may have questions regarding a certain group of records that seems to fall outside of the classification schedule or otherwise is not explicitly covered in the retention and disposition scheme; in these cases, the Archivist is notified and the records in question are transferred to the archives for appraisal.

13. *How many staff members does the archives have? What are their qualifications and competences?*

The archives has a 40% time staff member: the Archivist.<sup>29</sup> The Archivist holds Master’s degree in Information and Library science, and a digital arts degree. The current focus of the Archives is to support operations and the initiative to undertake projects to celebrate the Institute’s 50th anniversary in 2014.

The Associate Director, Privacy and Records Management, holds Master’s degrees in Library Science and Business Administration as well as a Certificate of Records Management. The position is currently a 50% FTE (since 2010, due to budget constraints).

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<sup>29</sup> At the outset of the case study, the archives had one full-time Archivist, with degrees in archival studies and history. This position was eliminated in 2010 due to budget constraints. As of 2012, the positions has been reinstated as a part-time role.

14. *Who are the primary or exclusive users of the archives?*

The primary users of the archives are faculty and staff of BCIT. Other user groups include students, alumni, and industry researchers. The archives are open to the general public.

15. *How many records does the archives receive each year?*

The archives receives approximately 20 linear metres of hardcopy records annually. Every two years, the BCIT staff photographer submits a hard drive containing thousands of digital photographs to the archives.

16. *Does the archives already hold digital material? If yes, what type of material, and how has it been processed and preserved? If not, what digital material does the archives expect to receive and when?*

As stated previously, the archives is beginning to accession some digital records. These digital records are primarily the photographs submitted by the staff photographer on a bi-annual basis in TIFF format.

The archives is also beginning to digitize some frequently accessed paper-based record groups, primarily for preservation and access purposes. (Paper originals are scanned into PDF format copies.) Examples of these records include:

- Board of Governors fonds 1975-2005;
- Education Council fonds 1979-2005;
- Office of the President fonds 1959-2005;
- Marketing & Communications fonds 1964-2006;
- The Nucleus Yearbook (1966-1980)
- The Link Student Newspaper, and the
- BCIT Historical Photograph Collection (upon demand, from the collection that spans 1953-1996).

The following records are scanned and available in PDF format from an online database:<sup>30</sup>

- BCIT Full-time program calendars 1964-2004,
- part-time program calendars 1965-2006, and
- Board of Governor's open session minutes 1981-2004.
- Access copies of digital photographs are made available in JPEG format, while preservation copies are kept in TIFF.

Many of the most heavily used materials, in addition to being digitized, are backed up onto microfilm and stored at an off-site location. The digitized files are stored on the archivist's computer and are then backed up onto the institution's servers.

17. *If the archives currently preserves digital material, what is its primary method for this preservation (e.g., copying, migration, emulation, etc.)? How frequently does the archives attend to these digital materials?*

There are currently no preservation or maintenance strategies in place for archived digital materials. All BCIT institutional servers are backed up on a regular basis; otherwise, there are no

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<sup>30</sup> For all digitized collections See: <http://www.bcit.ca/archives/onlinecollections.shtml>

specific strategies in place for preservation purposes. According to the draft Data and Records Classification policy number 3503 issued by IT Services, backups are made daily of stored electronic data and copies of those backups are stored in a secure off-site location.<sup>31</sup>

18. *What are the knowledge and financial resources of the archives? What are its technological capabilities, if any? What are the future expectations for resources and technical capabilities?*

The archivist is the primary user of the Archives Management System that runs the InMagic software suite. However, in April 2012, the Archives will migrate from InMagic to the Content Pro (an Innopac module) Content Pro will become an institute digital repository for more collections than the Archives provides, such as course outlines. Content Pro allows for easier searching of the archival holdings than is possible with the InMagic product that is currently used.

Records Management and Privacy (via the Library) is expected to budget for and manage the implementation of the migration of the archives software to the library system. It is also expected to budget for and finance digital preservation of records.

The Systems Librarian of the BCIT Library is considered the “tech wizard” and is the first point of contact for most IT concerns in the library and archives. As stated previously, BCIT’s IT Services department will be required to ensure preservation of digital records when a preservation policy is issued. Currently there is no funding for or plans to hire additional ITS staff or staff in the archives.

### **Narrative Answers to Recordkeeping Systems Research Questions<sup>32</sup>**

1. *Does the creating body have a recordkeeping system in place for its traditional records? If yes, what are its components (e.g., classification system, retention and disposition schedule)? If not, does it have specific control instruments, such as indexes?*

The British Columbia Institute of Technology has a recordkeeping system in place for its traditional records. The components of the system, laid out in the organization-wide Directory of Records, are a classification scheme and retention and disposition schedule. The Directory of Records prescribes this information for all series of records created or received by the Institute.

Digital records are created, received, and used by all departments at every level of administration and in multiple formats to carry out BCIT’s affairs. Over 100 million digital records exist within the institution’s information technology infrastructure. All of these are subject to the same retention and disposition schedules as the hardcopy records.

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<sup>31</sup> BCIT Data and Records Classification Draft Policy Number 3503, Most Recent Revision 2007 12 20.

<sup>32</sup> Recordkeeping Systems Research questions were conducted in early 2008. As much as possible, the original text has been retained in this report. Updated information has been noted as appropriate.

2. *Does the creating body want to establish an integrated and centralized digital recordkeeping system, controlling all records of the organization in all media and form? If yes, what are the separate records creating units that would share the system? If not, does the creator want separate records systems for digital and traditional records, or does it want separate recordkeeping systems for each unit?*

BCIT is not seeking a single, integrated, and centralized ERMS. Individual departments and schools within BCIT administer their own systems for management of data, although all records of the Institute are covered by the same organization-wide records management and privacy policies. Records Management would like to have the systems better integrated intellectually to produce a “snapshot” of the entire Institute’s patchwork of recordkeeping systems.

3. *What are the system(s) within which the records are presently created (e.g., functionality, software, hardware, peripherals, etc.)?*

Currently, there are a number of systems in use at BCIT that may contain records or potential records. Each department may purchase, implement and use software systems for database and information management that suits their business needs.

The IBM Lotus Notes software is used across the organization for email, calendar, and instant messaging capabilities was converted to MS Outlook in 2011-2012. Lotus Notes is also used to some extent for file sharing. The LN document libraries will be migrated to SharePoint at some future date.

Other examples of departmental software use is the ARCHIBUS software suite utilized by the Facilities Management department, the “Banner” software suite used for student information administrative services, a contract management system, a research project system, a judicial affairs application, and others. More detailed information regarding most of these products can be found by referring to the respective company Web sites.<sup>33</sup>

4. *From what applications would the recordkeeping system(s) inherit or capture the digital records and the related metadata (e.g., e-mail, tracking systems, workflow systems, office systems, databases, etc.)?*

As stated previously, each individual department at BCIT may implement or purchase their own software systems for database and information management to satisfy their own individual business needs. Therefore, the digital records are created over a variety of different systems. All records within the many systems are subject to the retention and disposition schedule laid out in the institution-wide Directory of Records. The Institute is not looking for a single recordkeeping system to capture the information into a singular system; rather they seek a systematic policy for digital records preservation.

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<sup>33</sup> ARCHIBUS Total Infrastructure and Facilities Management software (see <http://www.archibus.com/>); IBM Lotus software (see <http://www-306.ibm.com/software/lotus/>); Sungard Higher Education (for the Banner software suite) (see <http://www.sungardhe.com/index.aspx>); InMagic software (see <http://www.inmagic.com/>).

Classification number and case file name / number would need to be added to the metadata captured for records in all of the systems mentioned.

5. *Are the digital records that will be captured in the recordkeeping system already organized in a way that reflects the creation processes? What is the framework (e.g., functional classification), if any, for organizing them?*

Generally, digital records are not organized in a way that reflects the creation process. Every user in every department organizes its own materials in whatever manner it chooses. However, the BCIT *Directory of Records* does stipulate hierarchical classification code numbers for the different types of records within the institution along with their corresponding retention schedules.

6. *Who needs to have access to the records controlled by the recordkeeping system and their metadata?*

Nearly all users should have access to the records controlled by the recordkeeping systems and their related metadata; however, controls need to be in place ensuring the confidentiality of “department confidential” records.

The Information Security policy, 3502, drafted by IT Services regulates the security, use, and management of institutional data stored in electronic systems. The policy states that “All data and record must be classified according to their level of confidentiality, sensitivity, value and criticality” and breaks down the levels of confidentiality as Public: “Information or data available in full to the general public, employees, industry stakeholders, and students;” Confidential: “BCIT information or data that is confidential and held securely within a department based on business function requirements and any further contractual obligations;” and Personal: “BCIT information or data containing personal information and arranged by personal name or identifier.”<sup>34</sup>

Each department and school that is the owner of an information system is responsible for ensuring the security of the institutional data in that system. This is done by applying secure classification codes to confidential data in electronic information systems once the records have been identified as records at the time of creation. Confidential data are stored in a secure location and access is granted to only those authorized to view the records.

7. *Has the creating body, with or without the archives, already defined the intellectual and technological components and/or functional requirements for the recordkeeping system? If yes, what are they? If not, what are the fundamental requirements and the necessary components that would have to be implemented in such a system?*

The fullest definition for the functional requirements may be found in the three business cases for investment in ERM (2003, 2009, 2010). Officially, BCIT has not defined intellectual or technological components or functional requirements for an organization-wide recordkeeping system (again, BCIT is not in a position to fund an organization-wide ERMS). Individual schools and

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<sup>34</sup> BCIT Data and Records Classification Draft Policy Number 3503, Most Recent Revision 2007 12 20.



departments implement their own data management systems according to their unique business needs and activities; all records produced by these schools and departments, digital or otherwise, are subject to the classification, retention, and disposition as defined in the *Directory of Records*. BCIT requires a policy that defines how digital records are managed once they are no longer in their active state, as well as defined procedures that will allow this policy to be carried out.

8. *What descriptive or other metadata schema or standards are currently being used in the creation, maintenance, use of the digital records?*

There is no descriptive or other metadata schema or standards currently being used in the creation or maintenance of BCIT's digital records.

9. *What are the financial resources and technical capabilities of the creating body?*

Each creating office manages its own financial resources; each of the departments and schools have varying "in-house" technical capabilities.

Records Management and Privacy is expected to plan, finance, and implement policies and procedures related to the preservation of the Institute's digital records. This office (via the Library) will also finance the archival preservation of digital records. There is no budget and no plans to hire additional ITS staff to enable a preservation department.

Records creating offices and staff generally are not aware of the issues surrounding digital records management and preservation. The initiative to address these concerns is coming from Records Management and Privacy. BCIT's digital records procedure calls for the Privacy and Records Management office, the business unit, and IT Services to work together to assume responsibility for processing and preserving digital materials. This procedure falls under Records Management policy 6501 and as such is a mandatory requirement.. Records Management and IT Services collaborated to develop retention and disposition schedules for certain series of digital records produced by the Institute, and these schedules have been incorporated into the *Directory of Records*. (Refer to the Contextual Analysis for more detail regarding BCIT's financial resources and technical capabilities.)

10. *What are the issues specific to the records of this creating body in relation to accessibility, security, data privacy, and FOIA?*

Legally, BCIT is subject to the federal *Freedom of Information and Protection of Privacy Act* or *FOIPOP*, which defines BCIT's responsibilities to collect, use and securely maintain only the personal information the Institute requires for operational and administrative purposes (and to clearly communicate the purposes for which personal information is collected). Policy 6700 "Freedom of Information and Protection of Privacy Policy" guides staff members on their responsibilities in this area.

The provincial Privacy Act also regulates BCIT’s actions with regard to photographs of individuals and personal testimonials (text attributed to identifiable individuals). The *Act* states that this type of personal information can only be used with the personal written consent of the individual(s) pictured or quoted. In addition, private organizations that are administered “at arm’s length” from BCIT, such as the BCIT Foundation and the BCIT Alumni Association, must separately obtain individual consent for the collection, use, and disclosure of personal information. Similarly, these organizations must provide individuals with a right to access or correct the personal information in their custody.

The “Responsible Use of Information Technology” policy 3501 (issued by IT Services) addresses the Institute’s position regarding both the legal and ethical use of its information technology resources and services. Essentially, the policy states that it is each individual user’s responsibility to be aware of and act in accordance with applicable laws and BCIT policies when using the Institute’s network or technological infrastructure; these include copyright legislation and institutional policies regarding harassment. Use of BCIT infrastructure to facilitate outside personal business for commercial gain is also prohibited, as are activities that may be damaging to the BCIT network (such as knowingly introducing viruses or “hacking” passwords, data, or programs from other users without consent. Individuals in violation policy 3501 may be subject to disciplinary action or criminal prosecution accordingly. (The full list of user responsibilities can be found within the policy.)<sup>35</sup>

11. *With respect to the recordkeeping system represented in the InterPARES 2 Chain of Preservation model, what level of complexity is needed by the creating body?*

BCIT requires a simple flow chart with only one “layer” or level of complexity; this should provide a “snapshot” or a simple conceptual model of the output of digital records from all of the organization’s recordkeeping systems in accordance with the new digital preservation policy.

## **Glossary of Terms**

This Glossary of terms supports the Policy and procedures developed for BCIT. It is intended to explain key concepts in the policy and procedures from the perspective of the InterPARES research.

**Accessibility:** The availability, intelligibility and usability of information.

**Accuracy:** The degree to which data, information, documents or records are precise, correct, truthful, free of error or distortion, or pertinent to the matter.

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<sup>35</sup> BCIT IT Services Policy Number 3501: Responsible Use of Information Technology at BCIT. Available at <http://www.bcit.ca/files/pdf/policies/3501.pdf>.

**Active Records:** Active records are those in current use, meaning that they are referred to at least once a month per records series. They are stored in office areas and on information technology servers that are immediately accessible.

**Appraisal:** The process of assessing the value of records for the purpose of determining the length and conditions of their preservation.

**Appraise Records for Permanent Preservation:** To make decisions about the preservation of records for an indefinite length of time on the basis of information about the records and their context, their use, authenticity and value, and the feasibility of their preservation; and to monitor the records in relation to those decisions to identify any necessary changes to appraisal decisions over time.

**Authenticity:** The trustworthiness of a record as a record; i.e., the quality of a record that is what it purports to be and that is free from tampering or corruption. A record is considered authentic when its identity and integrity can be ascertained.

**Authenticity Requirement:** A condition, the satisfaction of which allows for a presumption of authenticity.

**Case File:** In both electronic and paper-based records systems, the group of records that relate to a specific action, event, person, or project. Case files are created within the Directory of Records in order to determine the development of a business matter or of a person's relationship with BCIT and constitutes the basis of the records retention schedule.

**Case File Management:** A coherent set of objectives and procedures that enable an Institutional department to effectively manage its case files throughout their lifecycle (from creation to disposal).

**[Departmental] Digital Records Custodian:** The employee within a BCIT department who is responsible for managing the department's digital records.

**Directory of Records:** The Directory of Records is BCIT's records classification and retention schedule. It provides a filing structure for records that exist at the Institute, descriptive scope notes, classification numbers, and designation of the BCIT office accountable for maintaining the record. The Directory also shows the legislation and procedures that apply. Department managers and/or Directors have approved the retention time schedules published in the Directory.

**Information Life Cycle Management:** A coherent set of objectives and procedures for the effective management of information during its entire lifecycle from original receipt or creation to active and semi-active use, inactive maintenance and final disposition.

**Long-term Digital Records Maintenance [Long-term maintenance]:** A coherent set of objectives and methods for managing, protecting and maintaining accessibility of authentic copies of digital records throughout their life cycle, until such time when they are either transferred to the archives for permanent preservation or destroyed.

**Long-Term Value:** For purposes of digital records preservation, long-term means a minimum retention time of eight years for business purposes with a final disposition of destruction. These records are not transferred to the Archives.

**Metadata:** Information that characterizes another information resource by listing its attributes, especially for purposes of identifying, retrieving, managing and preserving that resource.

**Permanent Value:** The quality of records that have been identified for permanent preservation in the Archives. It pertains to records having legal or administrative usefulness for an indefinite period of time and to records of enduring historical significance, made or received by the Institute and its employees in the course of their activities and functions. These records may include correspondence, reports, policy and procedure manuals, strategic planning statements, surveys, architectural drawings, minutes of Board of Governors meetings or of committees and departments, financial statements and case files on any medium.

**Records:** Recorded information, or documents, produced in the conduct of business in any media format, analogue or digital, including audio-visual, graphic and print, for the delivery of BCIT programs and services, to carry out operations, to make decisions and to account for activities. Records are used for action or reference and may serve as evidence of those actions, transactions, operations or events or simply as information. Any record made or received in the course of an employee's or contractor's duties at BCIT is the property of BCIT with the exception of teaching and research materials as covered in BCIT Policy 6700, Freedom of Information and Protection of Privacy Policy.

**Records Disposition:** Disposition is the determination of what will happen to records at the end of their life cycle, after active and semi-active uses have expired. As a consequence of such determination records are either destroyed or transferred to BCIT's historical Archives.

**Record's Life Cycle:** The entire period of a record's existence, from original receipt or creation to active and semi-active use, inactive maintenance and final disposition.

**Reliability:** The trustworthiness of a record as a statement of fact. It exists when a record can stand for the fact it is about, and is established by examining the completeness of the record's form and the amount of control exercised on the process of its creation.

## **Digital Preservation Policy**

The policy was developed intentionally to be institution-wide and to address the preserver principles as outlined in the InterPARES 2 Policy Framework.<sup>36</sup> It gives some procedural autonomy to individual departments while addressing some of the general procedural issues and concerns that apply to all BCIT departments. It gives the Associate Director, Privacy and Records Management authority over digital records, with guidance provided by the BCIT Archives.<sup>37</sup>

The policy has been approved and adopted by the BCIT Board of Governors at the level of a procedure in BCIT's policy structure.

The policy is attached as Appendix 5. The policy alignment diagram is found in Appendix 7.

## **Guidelines for Records Management Procedures – Electronic Records**

The procedures (see Appendix 6) that allow the policy to be carried out include the definition of the responsibilities, activities and achievable outcomes necessary to make the policy fully operational.

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<sup>36</sup> Available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_19.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_19.pdf)

<sup>37</sup> InterPARES 3 Project, "TEAM Canada Plenary Workshop 02: Workshop Proceedings," 4-5.

For the procedures to achieve these goals, a chart was developed (see Appendix 8) that maps the InterPARES 2 Creator Guidelines onto BCIT's existing Policy and Procedures and the interview data. This mapping was used to identify the required elements for the procedures. This forms the working paper for the draft procedures.

In the process of drafting the procedures, it was determined that an additional level of administration existed. In light of this, the definition of "Records Custodians" has been redrafted and a definition for "Records Administrator" has been added. These roles are reflected in the draft procedures and BCIT is updating its policies to reflect this.

**Records Administrator:** A management-level employee in a BCIT department who is accountable for the enforcement of policies, procedures and guidelines that ensure effective creation, maintenance, preservation and disposition of their department's records.

**Records Custodians:** Employees within BCIT departments responsible for the implementation of records management policies, procedures and guidelines.

## Conclusion

The goal of this case study was to develop a policy and procedures for the preservation of digital records at BCIT. These two needed to be harmonized with the existing Records Management Policy and Records Management Procedures to create a coherent suite of controls and guidelines to ensure the proper management of all BCIT records. The policy and procedures were created using the models and guidelines developed through InterPARES 1 and InterPARES 2 (see Bibliography).

The final products were the result of close cooperation between the test bed and the graduate research assistants. They reflect a pragmatic combination of best practices as developed by InterPARES and sensitivity to the organizational culture of the test bed. The policy has been approved by the Board of Governors and adopted as BCIT 6701-PR2, posted on the BCIT website.

## Bibliography

International Research on Permanent Authentic Records in Electronic Systems (InterPARES) 2: Experiential, Interactive and Dynamic Records, Luciana Duranti and Randy Preston, eds. (Padova, Italy: Associazione Nazionale Archivistica Italiana, 2008).  
[http://www.interpares.org/display\\_file.cfm?doc=ip2\\_book\\_introduction.pdf](http://www.interpares.org/display_file.cfm?doc=ip2_book_introduction.pdf)

[Appendix 19:](#) A Framework of Principles for the Development of Policies, Strategies and Standards for the Long-term Preservation of Digital Records.

[Appendix 20:](#) Creator Guidelines - Making and Maintaining Digital Materials: Guidelines for Individuals

[Appendix 21:](#) Preserver Guidelines - Preserving Digital Records: Guidelines for Organizations (includes appendices 21a, 21b, 21c)

Appendix 21a: Benchmark Requirements Supporting the Presumption of Authenticity of Electronic Records

Appendix 21b: Baseline Requirements Supporting the Production of Authentic Copies of Electronic Records

Appendix 21c: Digital Records Maintenance and Preservation Strategies

[Appendix 22](#): InterPARES 2 Project Ontologies

## **Acknowledgements**

The InterPARES Project would like to thank the test-bed partners, researchers, and graduate research assistants who participated in the BCIT case study:

### *Test-bed Partners:*

Patricia Daum, Associate Director, Privacy and Records Management, 2007-2012

Deidre Brocklehurst, Archivist, 2007-2010

Elizabeth Padilla, Historical Archivist, 2012-

### *Researchers:*

Luciana Duranti, Project Director, TEAM Canada

Randy Preston, Project Coordinator, TEAM Canada, 2007-20011

Alexandra Allen, Project Coordinator, TEAM Canada, 2011-2012

### *Graduate Research Assistants:*

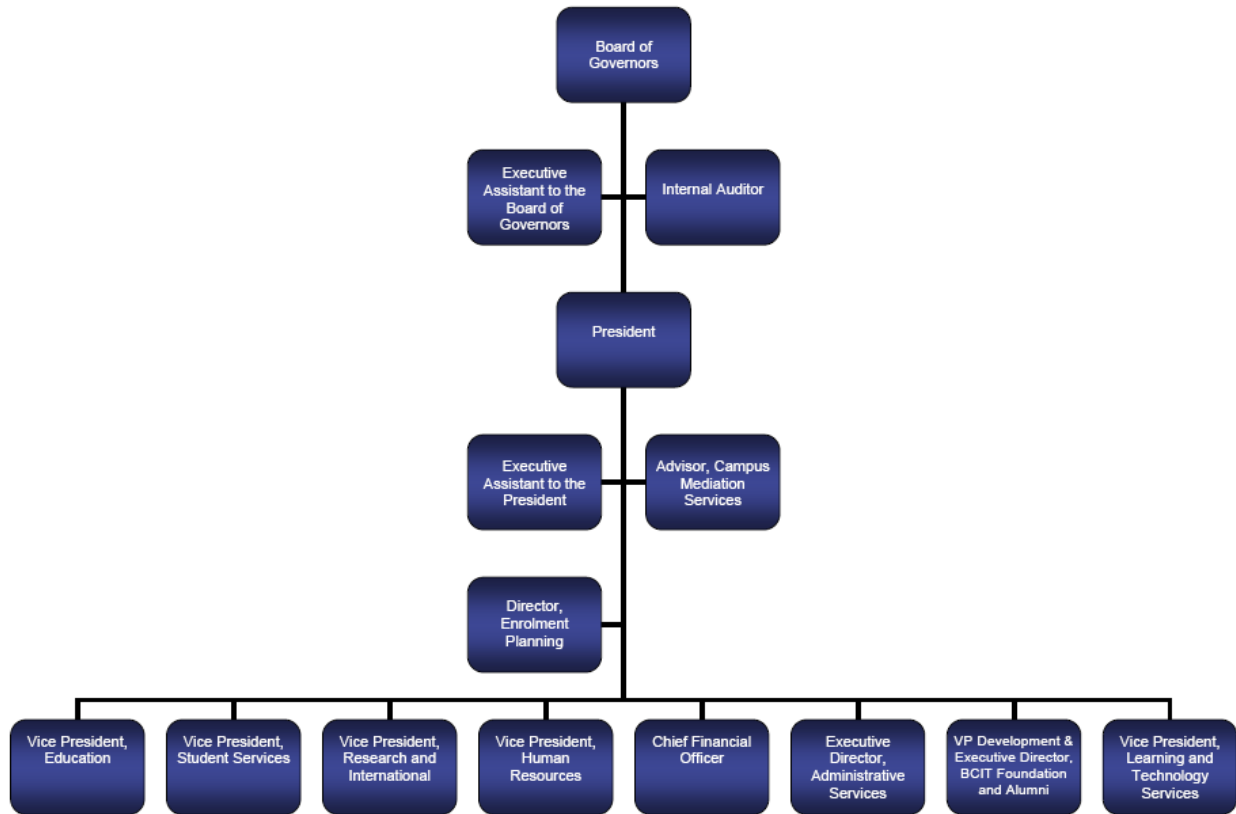
Helen Callow, 2008-2010

Brian Sloan, 2008-2009

Elizabeth Shaffer, 2009-2012

Corinne Rogers, 2010-2012

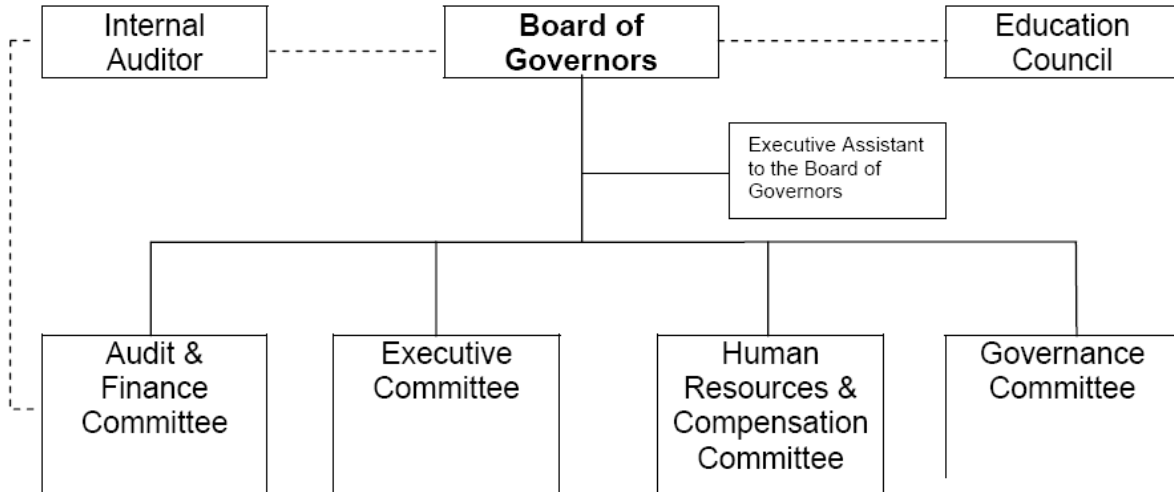
## Appendix 1: Administration Organizational Chart



## Appendix 2: Board of Governors Organizational Chart



### Board Committee and Liaison Structure

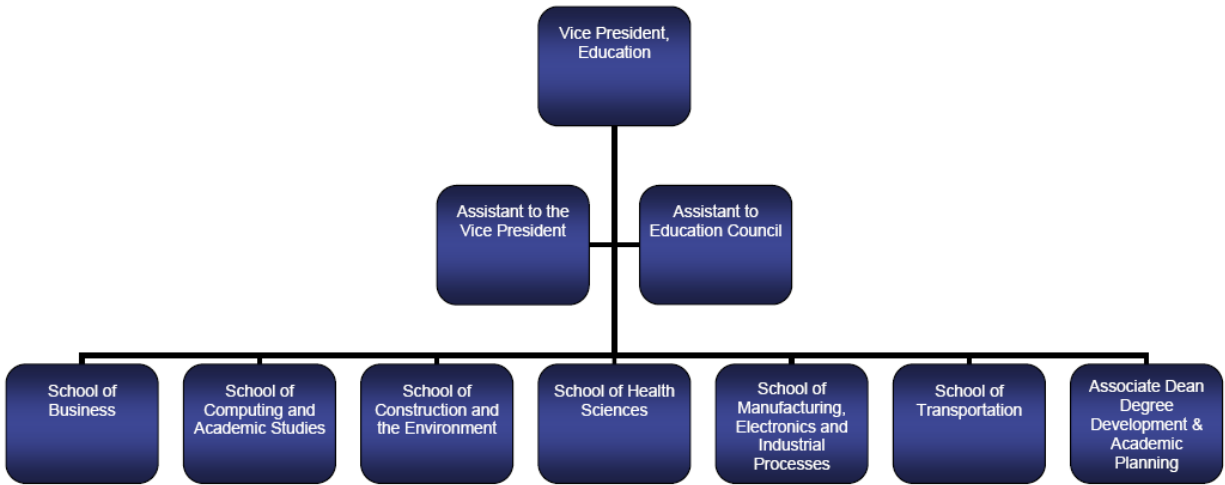


Board Representation on Internal and External Committees/Councils:

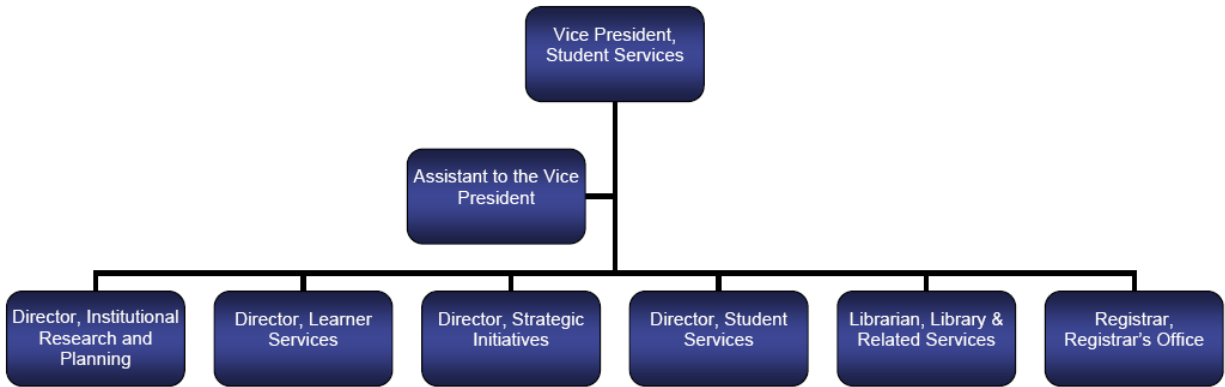
- Post-Secondary Employers' Association (PSEA)
- Research and Ethics Committee
- Tributes Committee
- BCIT Foundation



### Appendix 3: Vice President, Education Organizational Chart



### Appendix 4: Vice President, Student Services Organizational Chart



## Appendix 5: Digital Preservation Policy<sup>38</sup>

### Digital Records Preservation

Procedure No.:	6701-PR2
Policy Reference:	6700 Records Management
Category:	Information Management
Department Responsible:	Records Management and Privacy
Current Approved Date:	2009 Nov. 20

### Overview

This procedure provides a framework for the preservation of digital records identified for long-term and permanent retention in BCIT's Directory of Records. It outlines the procedure on how these digital records will be made available for current and future use through the implementation of preservation methods throughout their lifecycle that minimize the effects of information technology obsolescence. In this way it supports BCIT's Records Management Policy (6701) and Archives and Special Collections Policy (6702), both of which govern the creation, management and appraisal of records in all media.

This procedure facilitates the effective management of digital resources so that dependable institutional resources can be directed toward the institutional goals of teaching and service delivery. The effective management of digital information resources will assist BCIT in providing technical and professional education and training that supports our graduates as practitioners and as citizens and advances the state of practice.

This policy aims to enable BCIT to effectively carry out its educational and training, research, and administrative purposes pursuant to the mandate of the Institute by keeping records usable and available to support institutional operations and decision-making.

### Goals

The goals of this policy are to act as an authoritative guide on the long-term preservation of digital records at BCIT, and to provide a comprehensive overview of the long-term digital preservation function.

Further goals are as follows:

- to support the identification of the significant characteristics of digital records that need to be protected to maintain their accuracy, reliability and authenticity;
- to inform BCIT digital records creators and custodians of their roles and responsibilities in the creation, maintenance and disposition of digital records identified for long-term and permanent preservation; and
- to support the ongoing accessibility and continuing preservation of digital records that will be considered trustworthy for legal, administrative and historical purposes over the long term.

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<sup>38</sup> This policy is posted on the BCIT website, available at [http://www.bcit.ca/files/pdf/policies/6701\\_pr2.pdf](http://www.bcit.ca/files/pdf/policies/6701_pr2.pdf), last accessed March 26, 2012. Note that the version approved by BCIT has been incorporated into their policy framework as a procedure.

## Who Does this Policy Apply To?

This policy applies to all BCIT employees (including faculty, staff and administrators) and all schools and departments that generate digital records.

## Related Documents and Legislation

### BCIT Policies:

6700, Freedom of Information and Protection of Privacy

6701, Records Management

6702, Archives and Special Collections

### Legislation:

- *BC Evidence Act*
- *BC Freedom of Information and Protection of Privacy Act*
- *Canada Copyright Act*
- *Canadian Patent Act*
- *Canadian Trade-Marks Act*

### Guidelines and Standards:

- *Canadian Digital Information Strategy (October 2008)*
- *Electronic Records as Documentary Evidence (CAN/CGSB-72.34-2005)*
- *Canadian General Standards Board Microfilm Standard*

## Definitions<sup>39</sup>

**Accessibility:** The availability, intelligibility and usability of information.

**Accuracy:** The degree to which data, information, documents or records are precise, correct, truthful, free of error or distortion, or pertinent to the matter.

**Active Records:** Records that are in current use, meaning that they are referred to at least once a month per records series. They are stored in office areas and on information technology servers that are immediately accessible.

**Appraisal:** The process of assessing the value of records for the purpose of determining the length and conditions of their preservation.

**Appraise Records for Permanent Preservation:** To make decisions about the preservation of records for an indefinite length of time on the basis of information about the records and their context, their use,

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<sup>39</sup> Definitions are drawn from BCIT policies, the InterPARES 2 Terminology Database Glossary (available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_glossary.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_glossary.pdf)), and the InterPARES 3 Terminology Database (available at [http://www.interpares.org/ip3/ip3\\_terminology\\_db.cfm](http://www.interpares.org/ip3/ip3_terminology_db.cfm)).

authenticity and value, and the feasibility of their preservation; and to monitor the records in relation to those decisions to identify any necessary changes to appraisal decisions over time.

**Authenticity:** The trustworthiness of a record as a record; i.e., the quality of a record that is what it purports to be and that is free from tampering or corruption. A record is considered authentic when its identity and integrity can be ascertained.

**Authenticity Requirement:** A condition, the satisfaction of which allows for a presumption of authenticity.

**Case File:** In both electronic and paper-based records systems, the group of records that relate to a specific action, event, person, or project. Case files are created within the Directory of Records in order to determine the development of a business matter or of a person's relationship with BCIT and constitutes the basis of the records retention schedule.

**Case File Management:** A coherent set of objectives and procedures that enable an Institutional department to effectively manage its case files throughout their lifecycle (from creation to disposal).

**[Departmental] Digital Records Custodian:** The employee within a BCIT department who is responsible for managing the department's digital records.

**Directory of Records:** BCIT's records classification and retention schedule. It provides a filing structure for records that exist at the Institute, descriptive scope notes, classification numbers, and designation of the BCIT office accountable for maintaining the record. The Directory also shows the legislation and procedures that apply. Department managers and/or Directors have approved the retention time schedules published in the Directory.

**Information Life Cycle Management:** A coherent set of objectives and procedures for the effective management of information during its entire lifecycle from original receipt or creation to active and semi-active use, inactive maintenance and final disposition.

**Long-term Digital Records Maintenance [Long-term maintenance]:** A coherent set of objectives and methods for managing, protecting and maintaining accessibility of authentic copies of digital records throughout their life cycle, until such time when they are either transferred to the archives for permanent preservation or destroyed.

**Long-Term Value:** For purposes of digital records preservation, long-term means a minimum retention time of eight years for business purposes with a final disposition of destruction. These records are not transferred to the Archives.

**Metadata:** Information that characterizes another information resource by listing its attributes, especially for purposes of identifying, retrieving, managing and preserving that resource.

**Permanent Value:** The quality of records that have been identified for permanent preservation in the Archives. It pertains to records having legal or administrative usefulness for an indefinite period of time

and to records of enduring historical significance, made or received by the Institute and its employees in the course of their activities and functions. These records may include correspondence, reports, policy and procedure manuals, strategic planning statements, surveys, architectural drawings, minutes of Board of Governors meetings or of committees and departments, financial statements and case files on any medium.

**Records:** Recorded information, or documents, produced in the conduct of business in any media format, analogue or digital, including audio-visual, graphic and print, for the delivery of BCIT programs and services, to carry out operations, to make decisions and to account for activities. Records are used for action or reference and may serve as evidence of those actions, transactions, operations or events or simply as information. Any record made or received in the course of an employee's or contractor's duties at BCIT is the property of BCIT with the exception of teaching and research materials as covered in BCIT Policy 6700, Freedom of Information and Protection of Privacy Policy.

**Records Disposition:** Disposition is the determination of what will happen to records at the end of their life cycle, after active and semi-active uses have expired. As a consequence of such determination records are either destroyed or transferred to BCIT's historical Archives.

**Record's Life Cycle:** The entire period of a record's existence, from original receipt or creation to active and semi-active use, inactive maintenance and final disposition.

**Reliability:** The trustworthiness of a record as a statement of fact. It exists when a record can stand for the fact it is about, and is established by examining the completeness of the record's form and the amount of control exercised on the process of its creation.

## Scope of Digital Records Preservation Program

The BCIT procedure for digital records preservation provides the institutional framework necessary to carry out the procedures that will ensure such preservation. Based on the infrastructure outlined in the InterPARES 2 Policy Framework,<sup>40</sup> policy and procedures together constitute a Digital Records Preservation Program that encompasses the disposition of all BCIT digital records appraised for long-term maintenance and of those appraised for permanent preservation in the Archives.

## Digital Records Preservation Models

The goals and objectives of the BCIT digital records preservation procedure will be achieved by developing processes and guidelines that adhere to widely applicable models for the long-term maintenance and permanent preservation of accurate, reliable and authentic records.

BCIT will utilize the concepts of the InterPARES 2 Chain of Preservation model,<sup>41</sup> a system of controls that extends over the entire lifecycle of records to ensure their identity and integrity over time. The

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<sup>40</sup> Available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_19.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_19.pdf).

<sup>41</sup> Available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_14.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_14.pdf) (model diagrams and definitions) and [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_part\\_5\\_modeling\\_task\\_force.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_part_5_modeling_task_force.pdf) (model narrative).

InterPARES 2 Creator and Preserver guidelines,<sup>42</sup> as well as other InterPARES documents, such as “Selecting Digital File Formats for Long-Term Preservation”<sup>43</sup> will be used in the design of procedures for the long-term maintenance and permanent preservation of digital records, including the transfer, and reproduction of digital records.

BCIT will also utilize any standard that will complement the InterPARES models and guidelines in supporting its records preservation program, such as the forthcoming ISO 865 Digital Records Conversion and Migration Process.

## Responsibilities

### Associate Director, Records Management and Privacy

The Associate Director, Records Management and Privacy, is responsible for management oversight and auditing of preservation of digital records. The Associate Director:

1. Raises awareness and advises the business units and ITS about departmental data system requirements and all relevant roles and standards required for creation, maintenance and preservation of reliable, authentic digital records;
2. Consults with the business unit and ITS on selecting hardware, software and file formats that offer the best likelihood of interoperability and continuing accessibility over time;
3. Identifies, with input from the BCIT Archivist, digital records for long-term and permanent value at the point of creation in accordance with BCIT retention schedules – Directory of Records, governed by BCIT’s Records Management Policy (6701) appraisal guidelines.<sup>44</sup>

The implementation of this policy, based on the development and implementation of the procedures recommended in the InterPARES 2 Creator and Preserver Guidelines (see above), will be under the oversight of the Manager, Records Management and Privacy.

### BCIT Archivist

The BCIT Archivist acts as an advisor to the Manager, Records Management and Privacy, Departmental Digital Records Custodians, and Information Technology Services (ITS) on issues surrounding digital preservation. In her/his role, the archivist also acts as the overall **BCIT digital records coordinator** and, in consultation with digital records creators and ITS, is responsible for the following activities. The Archivist:

1. Audits, trains, and advises on the preservation of long-term and permanent records;
2. Advises the Manager, Records Management and Privacy, the business unit and ITS on

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<sup>42</sup> Available at [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_20.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_20.pdf) and [http://www.interpares.org/ip2/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_21.pdf](http://www.interpares.org/ip2/display_file.cfm?doc=ip2_book_appendix_21.pdf), respectively.

<sup>43</sup> Evelyn Peters McLellan (2006), “InterPARES 2 Project - General Study 11 Final Report: Selecting Digital File Formats for Long-Term Preservation.” Available in English at

[http://www.interpares.org/display\\_file.cfm?doc=ip2\\_gs11\\_final\\_report\\_english.pdf](http://www.interpares.org/display_file.cfm?doc=ip2_gs11_final_report_english.pdf) and in French at [http://www.interpares.org/display\\_file.cfm?doc=ip2\\_gs11\\_final\\_report\\_french.pdf](http://www.interpares.org/display_file.cfm?doc=ip2_gs11_final_report_french.pdf).

<sup>44</sup> According to BCIT’s Records Management Procedures, digital records are required to be indexed and saved on hard drives in folders/directories (or equivalent) according to the same classification scheme as would apply to hardcopy records of the same function.

- selecting hardware, software and file formats that offer the best likelihood of interoperability and continuing accessibility over time;
3. Advises department digital records custodians to ensure existing digital records' accuracy and authenticity according to the InterPARES 1 Project's "Benchmark Requirements Supporting the Presumption of Authenticity of Electronic Records,"<sup>45</sup> the legitimacy and transparency of their chain of custody, knowledge of BCIT's records creators' record making and recordkeeping practices, and, where necessary, conducts direct verification of the implementation of the authenticity requirements;
  4. Advises departmental digital records custodians to ensure that digital materials are maintained stable and fixed in both their content and form;
  5. Advises departmental digital records custodians on issues of long-term maintenance and issues affecting permanent preservation if multiple owners occur;<sup>46</sup>
  6. Identifies the digital components of the records to be preserved and ensures that the records will remain linked to the metadata necessary to verify their identity and integrity over time;
  7. Establishes, advises on, and oversees the implementation of maintenance strategies (i.e., storage media, system security, etc.).<sup>47</sup>
  8. Advises on the documentation that needs to be produced on how the reproduction process control measures are established and implemented, how they are monitored, and the technical requirements for access;

The BCIT Archivist is the designated custodian for all records identified by BCIT as destined to permanent preservation. The BCIT Archivist, in her/his role as **designated digital record custodian** for records identified for permanent preservation:

1. Takes responsibility for the permanent preservation of these records;
2. Employs registration procedures for records transfer to the Archives when necessary;<sup>48</sup>
3. Supervises transfer and acquisition procedures;
4. Assesses the authenticity of digital records transferred to the Archives for permanent preservation;<sup>49</sup>

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<sup>45</sup> See Authenticity Task Force (2002), "Appendix 2: Requirements for Assessing and Maintaining the Authenticity of Electronic Records," in *The Long-term Preservation of Authentic Electronic Records: Findings of the InterPARES Project*, Luciana Duranti, ed. (San Miniato, Italy: Archilab, 2005), 204-219, especially 209-212, 214-217. Online reprint available at [http://www.interpares.org/book/interpares\\_book\\_k\\_app02.pdf](http://www.interpares.org/book/interpares_book_k_app02.pdf)

<sup>46</sup> The BCIT Records Management Guidebook states that departments using digital records for ongoing business processes are required to document those business processes that rely on digital records, regularly audit the security of the systems that store these records and document the departmental procedures in place for ensuring the security, audit trail and overall integrity of both the system and the records. Staff members are required to ensure that all policies and procedures in place for managing hardcopy records are applied consistently to digital records and additionally that an appropriate level of metadata is captured and maintained in a "suitable database."

<sup>47</sup> See "A. Maintenance Strategies," pp. 24-25 in Yvette Hackett, Domain 3 Task Force, "Appendix 21c: Digital Records Maintenance and Preservation Strategies," [electronic version] in *International Research on Permanent Authentic Records in Electronic Systems (InterPARES) 2: Experiential, Interactive and Dynamic Records*, Luciana Duranti and Randy Preston, eds. (Padova, Italy: Associazione Nazionale Archivistica Italiana, 2008), 24-27. Available at [http://www.interpares.org/display\\_file.cfm?doc=ip2\\_book\\_appendix\\_21.pdf](http://www.interpares.org/display_file.cfm?doc=ip2_book_appendix_21.pdf)

<sup>48</sup> A document has been drafted that outlines a proposed disposition schedule for certain records that exist only in digital format. Policies and procedures for transfer of these records to a trusted repository, as well as the nature of the repository itself, are yet to be determined.

<sup>49</sup> As per the InterPARES 1 Project's "Baseline Requirements Supporting the Production of Authentic Copies of Electronic Records." See Authenticity Task Force (2002), "Appendix 2: Requirements for Assessing and Maintaining the Authenticity of



5. Generates archival descriptions for all digital records transferred to and acquired by the Archives;
6. Establishes and implements strategies for permanent digital preservation (i.e., management of the information about the records, migration, emulation, technology preservation, etc.);<sup>50</sup>
7. Makes the digital records accessible to researchers according to the procedure described in the InterPARES Chain of Preservation model.

### **BCIT Departmental Digital Records Custodians**

The BCIT departmental digital record custodians, in consultation with the Archivist and the Manager, Records Management and Privacy, digital records creators and Information Technology Services, are responsible for the following activities within their department. The digital records custodian:

1. Recognizes digital records destined to long-term maintenance early in their lifecycle, preferably at the time of creation;
2. Ensures that digital materials are maintained stable and fixed in both their content and form;
3. Identifies all owners of the records and addresses issues of long-term maintenance if multiple owners occur;<sup>51</sup>
4. Selects hardware, software and file formats, in consultation with the Archives, the Manager, Records Management and Privacy, and ITS, that offer the best likelihood of interoperability and continuing accessibility over time;
5. Recognizes the digital components of the records to be maintained and ensures that the records will remain linked to the metadata necessary to verify their identity and integrity over time;
6. Implements maintenance strategies (i.e., storage media, system security, etc.);<sup>52</sup>
7. Documents how the reproduction process control measures are implemented, how they are monitored, and the technical requirements for access.

### **BCIT Records Creators**

BCIT records creators have a duty to create and maintain reliable, authentic electronic records according to the procedures related to this policy.

### **BCIT Information Technology Services Department**

The BCIT Information Technology Services Department (IT Services), in consultation with the Manager,

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Electronic Records,” in *The Long-term Preservation of Authentic Electronic Records: Findings of the InterPARES Project*, Luciana Duranti, ed. (San Miniato, Italy: Archilab, 2005), 204-219, especially 213-214, 217-219. Online reprint available at [http://www.interpares.org/book/interpares\\_book\\_k\\_app02.pdf](http://www.interpares.org/book/interpares_book_k_app02.pdf).

<sup>50</sup> See “B. Preservation Strategies,” pp. 25-27 in Hackett, op. cit.

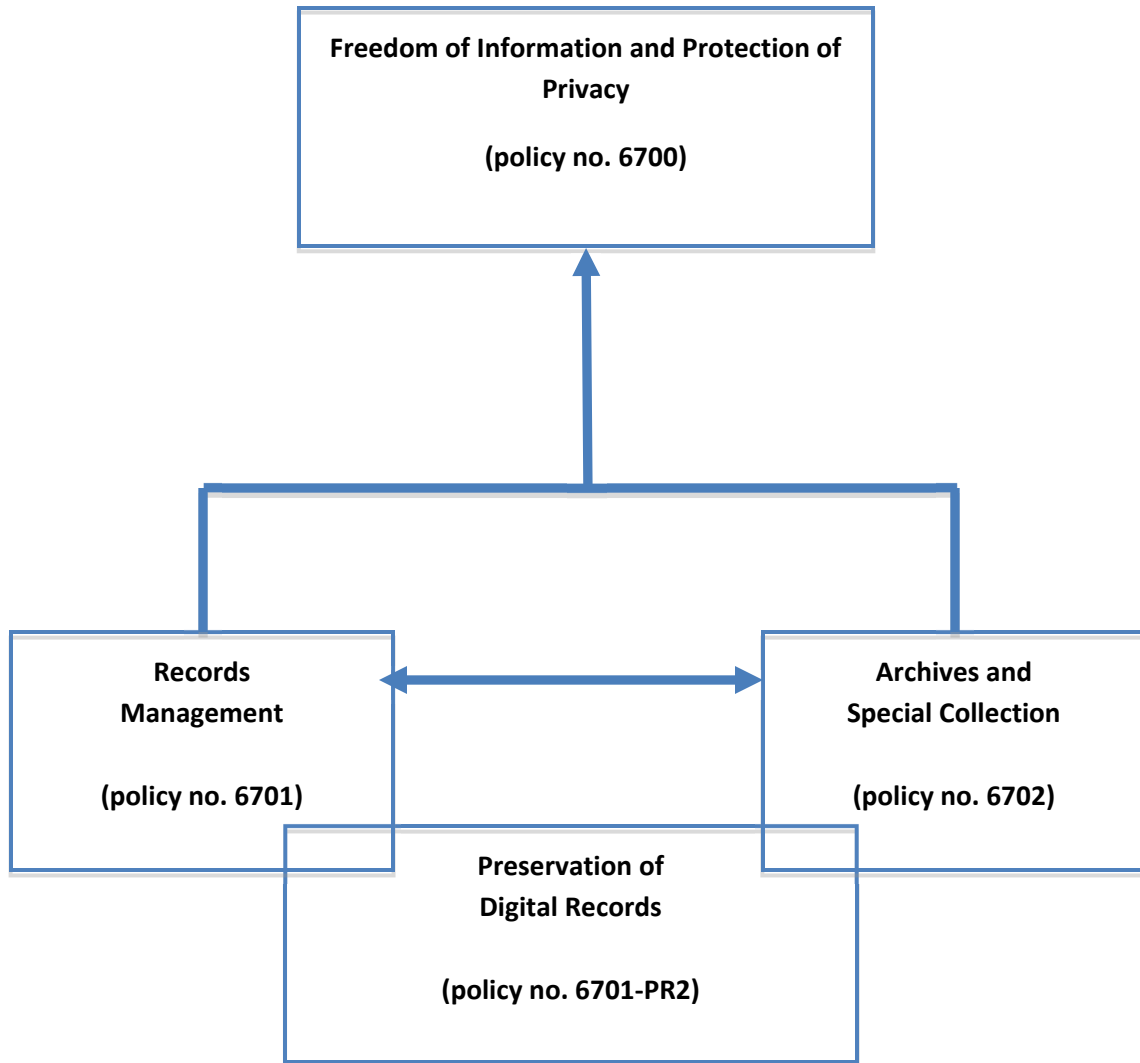
<sup>51</sup> The BCIT Records Management Guidebook states that departments using digital records for ongoing business processes are required to document those business processes that rely on digital records, regularly audit the security of the systems that store these records and document the departmental procedures in place for ensuring the security, audit trail and overall integrity of both the system and the records. Staff members are required to ensure that all policies and procedures in place for managing hardcopy records are applied consistently to digital records and additionally that an appropriate level of metadata is captured and maintained in a “suitable database.”

<sup>52</sup> See “A. Maintenance Strategies,” Hackett, op. cit.

Records Management and Privacy, and the BCIT Archivist:

1. Conducts business analysis to accurately document the technical requirements for digital records preservation;
2. Provides the technological preservation infrastructure to support the effective implementation and delivery of the Digital Preservation Policy;
3. Installs and supports software applications necessary to effectively carry out and maintain the Digital Preservation Policy.

## Appendix: BCIT Institutional Policy Alignment



## Appendix 6: Guidelines for Records Management Procedures – Electronic Records

**DRAFT: May 7, 2010**

<b>Digital Records Preservation Guidelines</b>	No:	6701 – GU1
	Policy Ref.:	6701; 6702
	Category:	Information Management
	Dept.:	Privacy & Records Management

### Objectives

These procedures apply directly to Records Management Policy 6701, and Archives Management Policy 6702, and Records Management Procedures 6701-PR 1. This set of procedures guide the activities of the Records Manager/Archivist, records administrators and custodians, and records creators to ensure that digital records are created and maintained according to the Directory of Records, and in such a way that their authenticity and reliability may be preserved over the long term.

### To Whom Do These Procedures Apply?

All BCIT employees.

### Procedures

#### Records Manager/Archivist

##### *Technology requirements*

- Identify and suggest to business units records creation and recordkeeping software that is widely adopted, non-proprietary, well-documented (i.e., have a freely available specification), platform independent (or interoperable), and either uncompressed or compressed using a lossless technique only.
- Review business requirements when upgrades, changes to existing records creation and recordkeeping software or new products are introduced.
- Review on a regular basis records creation and recordkeeping software technology requirements with business units and ITS in order to ensure timely migration for long-term preservation.

##### *File Formats & Metadata*

- Document all records creation and recordkeeping software in use, identifying file formats and versions, and any customizations that are made.
- Approve and standardize file formats and documentary forms used by business units.
- Develop metadata schema individualized for each business unit including metadata that guarantees the identity and integrity of records.
- Identify and suggest to business units the use of technology independent authentication procedures (e.g. standardized terms or creation, storage and maintenance of records/metadata).

### *FOIPOP*

- Advise business units of access to information and privacy protection responsibilities under FOIPOP legislation that is present throughout the lifecycle of the digital records.

### *Backups*

- Liaise with business units and ITS to ensure a rigorous, regular and standardized system of backups including operating systems and technology identification.
- Develop retention schedule for backed up data.
- Liaise with ITS and business units to ensure back ups are stored offsite.

### *Continuity & Preservation*

- Ensure DoR identifies records for LT preservation at creation.
- Develop with Records Custodians and ITS, a migration schedule for records to ensure long-term preservation and access.

## **Records Administrators**

### *Technology requirements*

- In conjunction with the Records Manager, and based on business requirements, choose records creation and recordkeeping software that is widely adopted, non-proprietary, well-documented (i.e., have a freely available specification), platform independent (or interoperable), and file formats that are either uncompressed or compressed using a lossless technique only.
- Review business requirements when upgrades, changes to existing records creation and recordkeeping software or new products are necessary.
- Regularly review records creation and recordkeeping software implemented in business units.
- Choose records creation and recordkeeping software, in consultation with ITS, Records Manager and Archivist for interoperability and accessibility.

### *File Formats & Metadata*

- Identify file formats and documentary forms required depending on business purpose or activity.
- Document all records creation and recordkeeping software in use, identifying file formats and versions, and any customizations that are made.
- Establish and document required elements of documentary form (e.g. logo, use of hyperlinks, image resolution, etc. and required information or content).
- Create, in consultation with the Records Manager and Archivist, appropriate metadata; train records custodians and creators in its application if not automatically generated.

### *Directory of Records*

- Classify records according to the Directory of Records; the DoR applies to digital records just as it does to paper records.

### *FOIPOP*

- Be knowledgeable of responsibilities under FOIPOP and provide training to records creators.

### *Backup*

- Create, in consultation with Records Manager, Archivist and ITS back up procedures for long-term preservation of records in the business unit.
- Ensure regular backups records identified for long-term digital preservation are carried out in business unit.
- Train and educate records creators in backup requirements and procedures for long-term digital records preservation within business unit.

### *Continuity & Preservation*

- Develop with Records Manager and Archivist a migration schedule for the records in the business identified for long-term preservation; implement records migration schedule within the business unit.
- Ensure records requiring long-term preservation are identified at creation and maintained in the business unit.
- Transfer records to archives according to disposition indicated in DoR.

### **Records Custodians (if different from Records Administrator)**

#### *Technology requirements*

- Use the approved hardware and records creation and recordkeeping software and train records creators as necessary.

#### *File Formats & Metadata*

- Identify file formats and documentary forms required depending on business purpose or activity.
- Document all records creation and recordkeeping software in use, identifying file formats and versions, and any customizations that are made.
- Ensure use of required elements of documentary form (e.g. logo, use of hyperlinks, image resolution, etc. and required information or content).
- Apply appropriate metadata to records submitted to document libraries; train records creators in its application if not automatically generated

### *Directory of Records*

- Classify records according to the Directory of Records; the DoR applies to digital records just as it does to paper records.

### *FOIPOP*

- Be knowledgeable of responsibilities under FOIPOP.

### *Backup*

- Ensure regular backups of long-term digital records are carried out in business unit.
- Train and educate records creators in backup requirements and procedures for records identified for long-term digital preservation within the business unit.

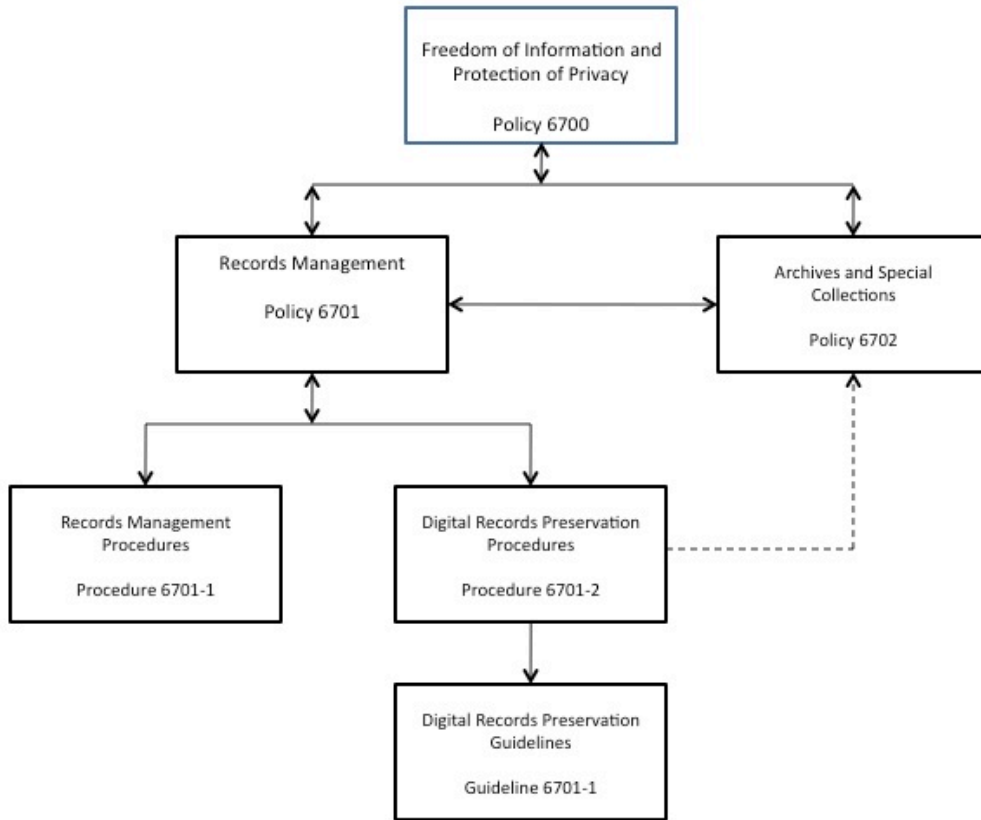
### *Continuity & Preservation*

- Ensure records requiring long-term preservation are identified at creation and maintained in the business unit.
- Transfer records to archives according to disposition indicated in DoR.

### **Records Creators**

- Use approved software applications.
- Use approved and standard file formats and documentary forms.
- Add all required metadata.
- Classify records upon creation/declare and submit records to the appropriate electronic records repository according to the Directory of Records.
- Be aware of responsibilities under FOIPOP legislation.
- Back up files according to procedures within business unit.

## Appendix 7: Policy Alignment

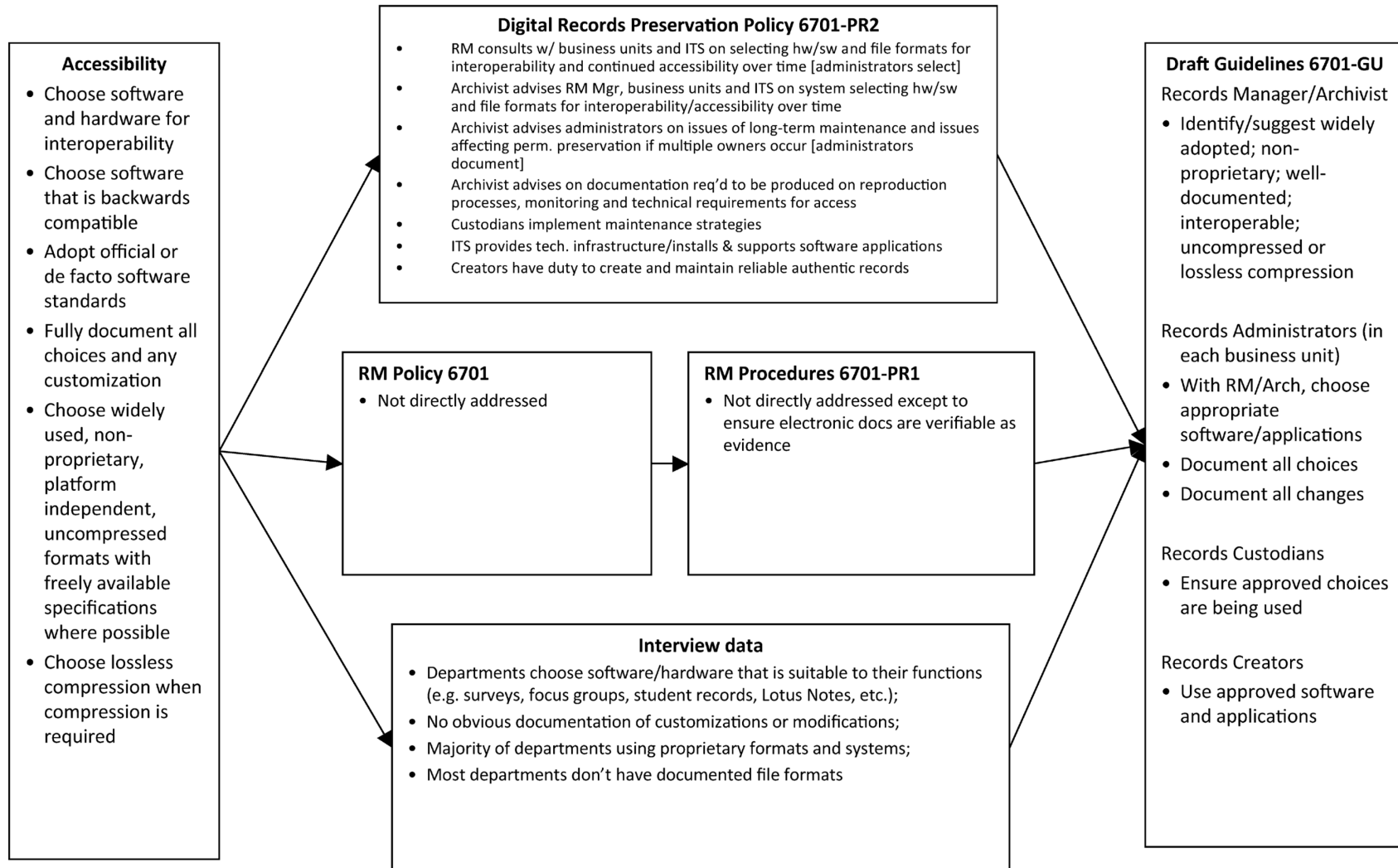




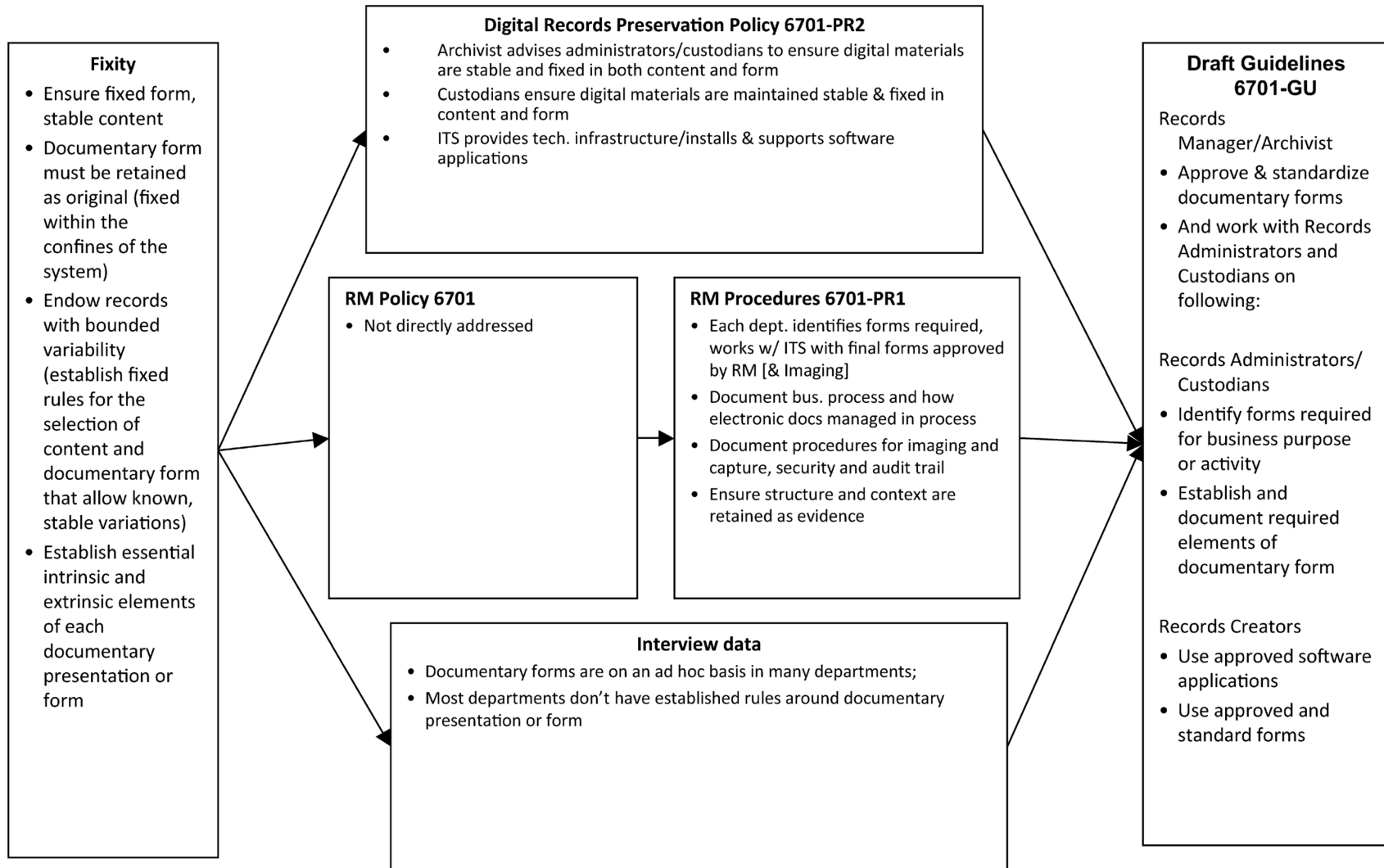
## **Appendix 8: Procedures Chart**

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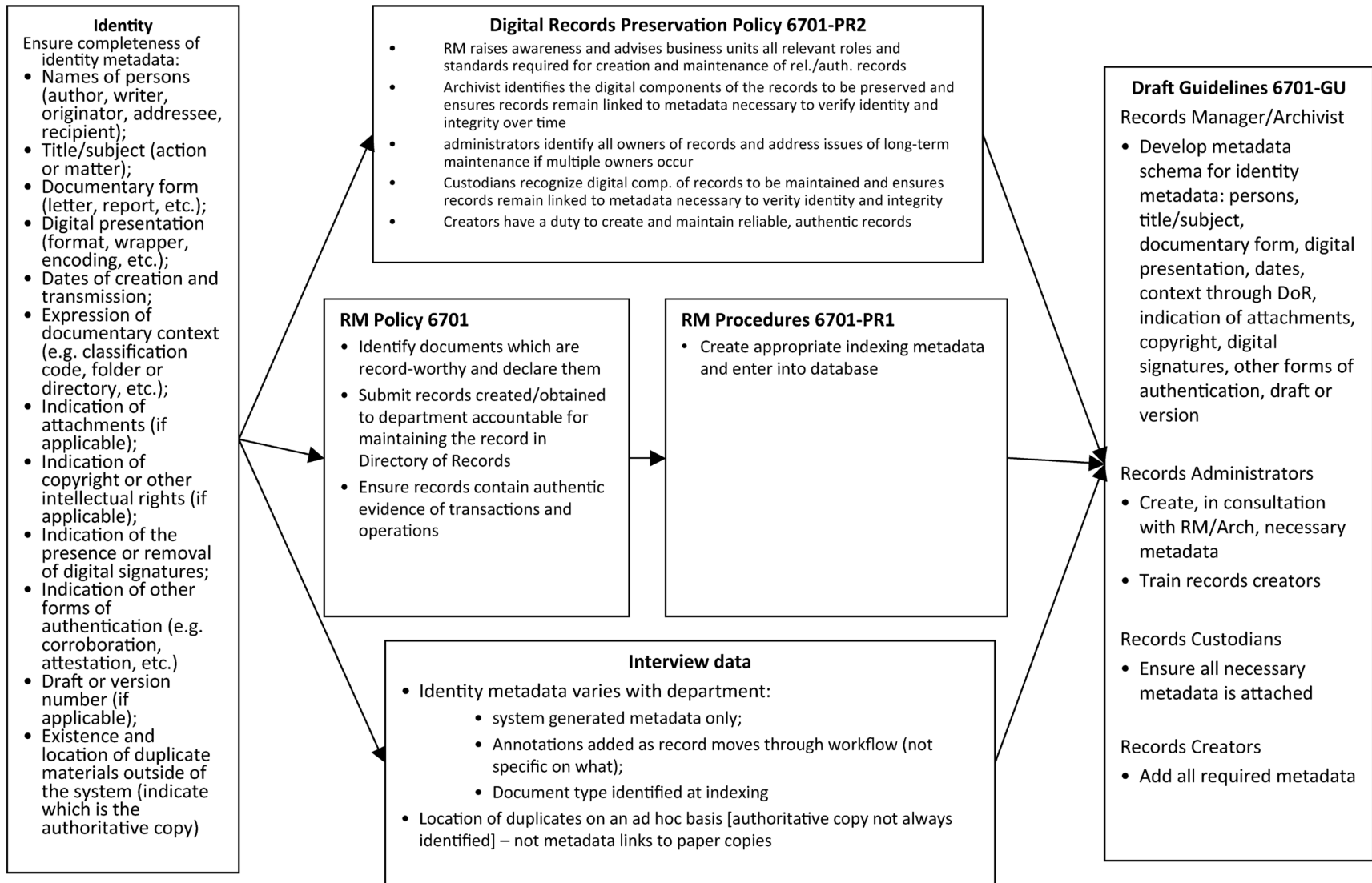
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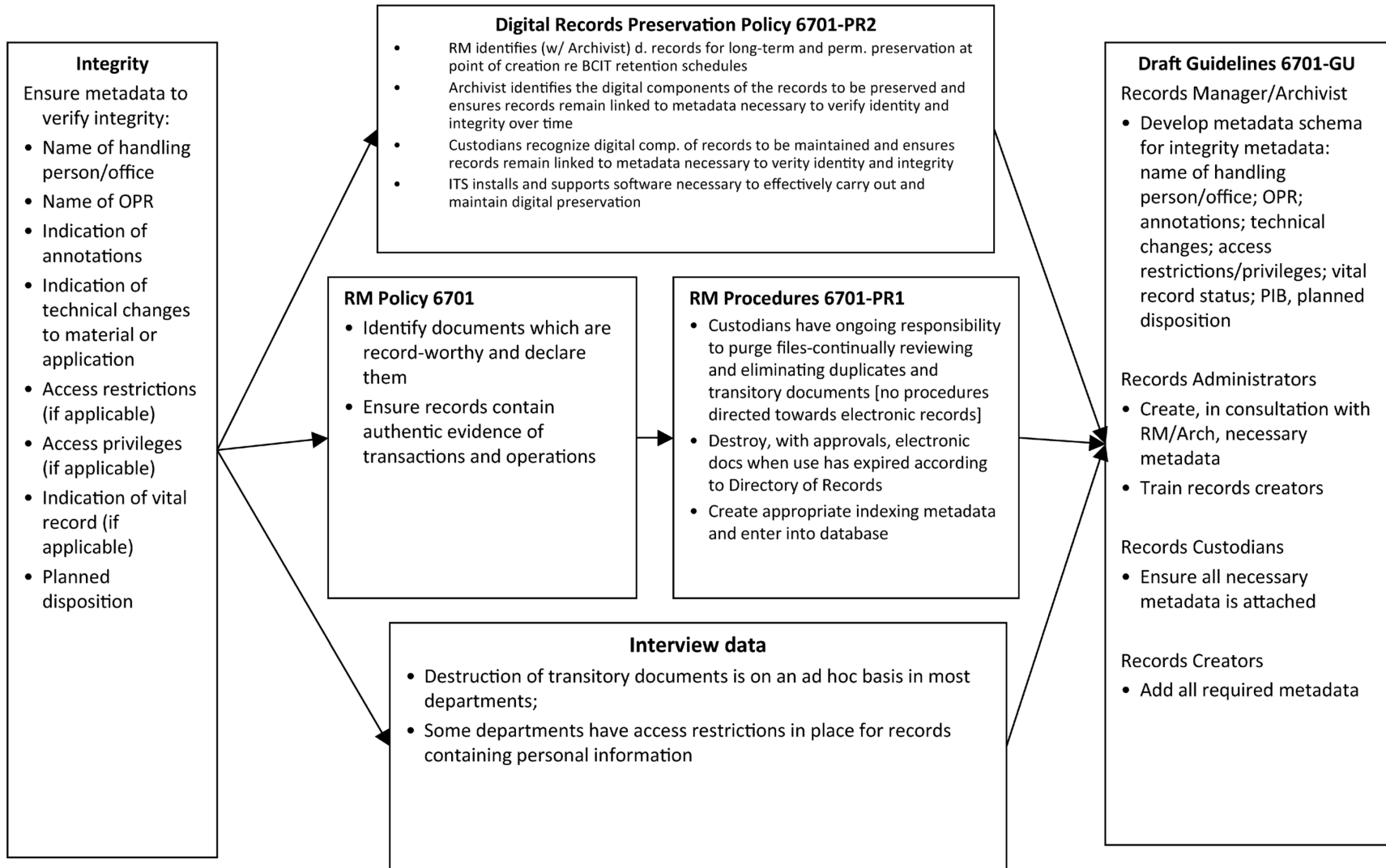
# Fixity



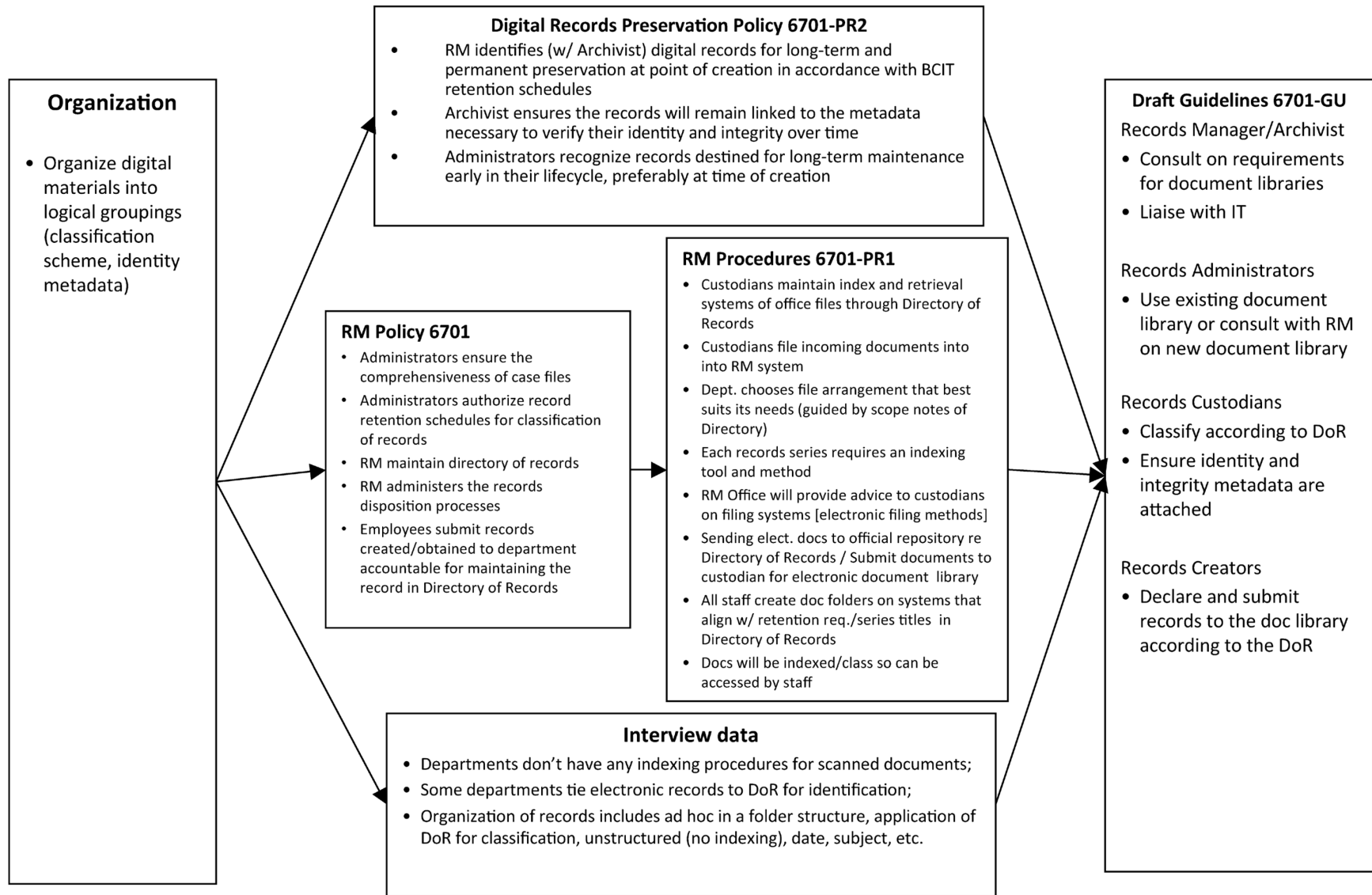
# Identity



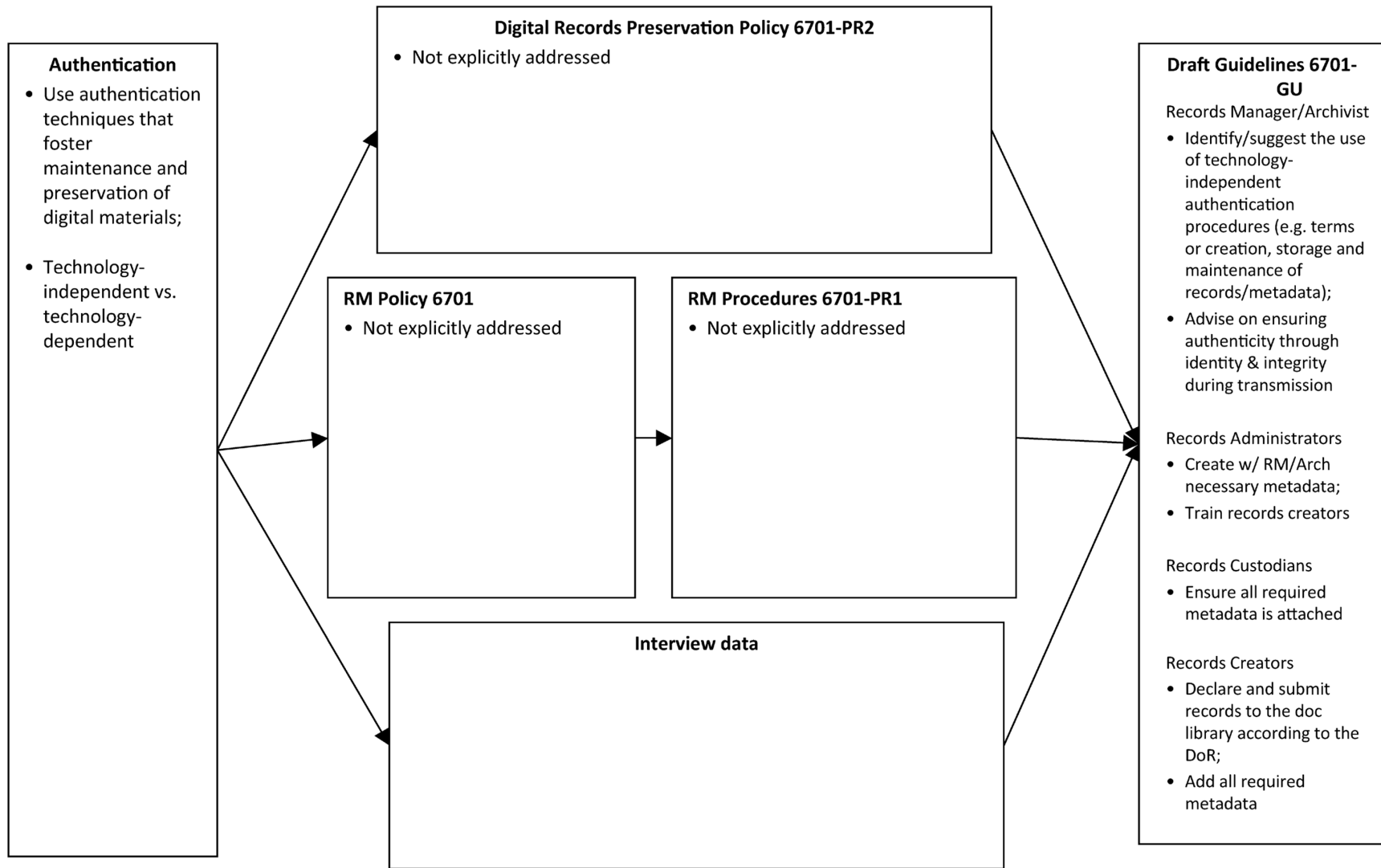
# Integrity



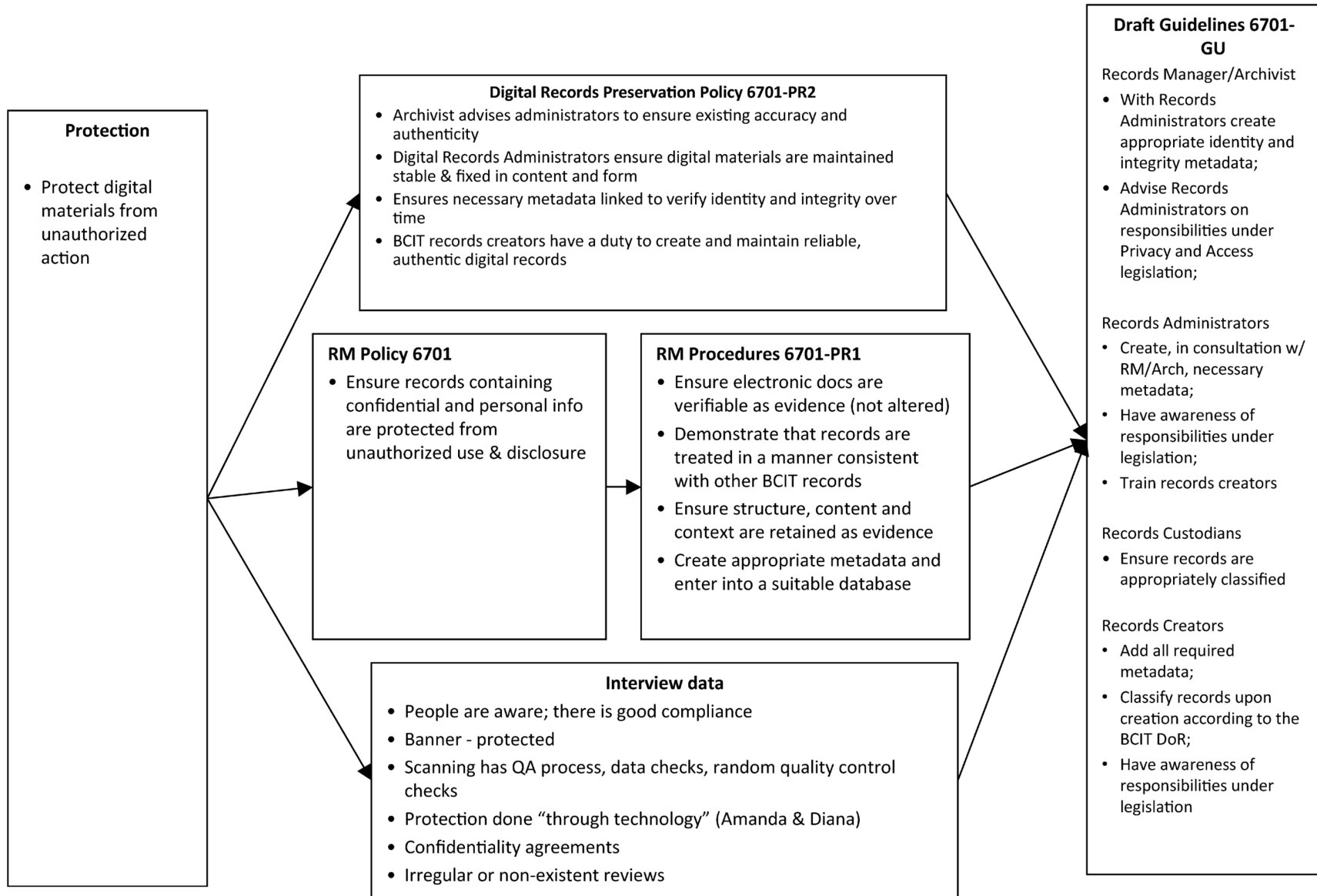
# Organization



# Authentication

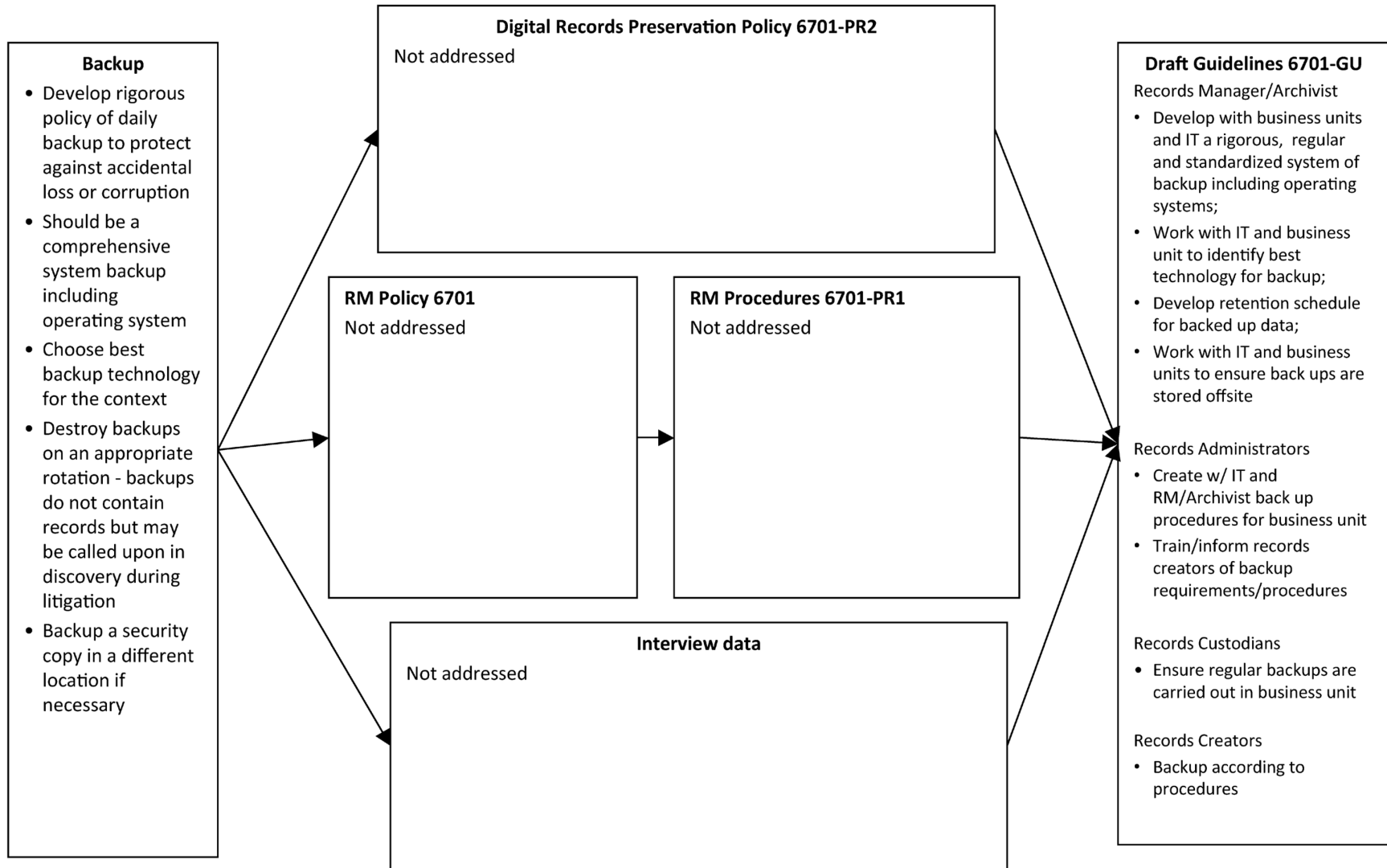


# Protection

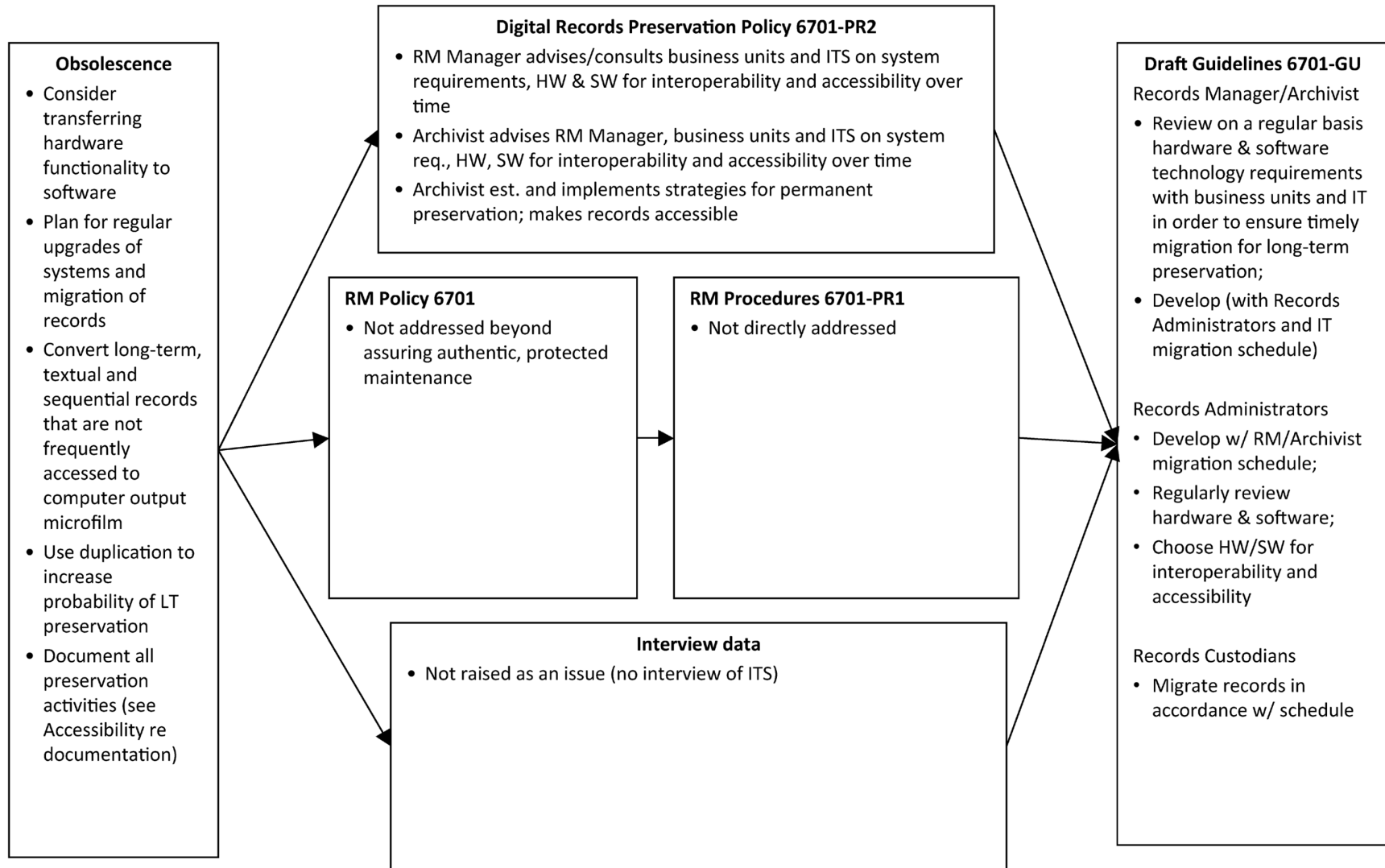




# Backup



# Obsolescence



# Awareness

