Long Range Plan:
Library and Information Services (LIS)
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Introduction

This Long Range Plan For Library and Information Services (LIS) proposes to employ information resources and technology to enrich active learning for students, to facilitate research for faculty, to promote more interaction among all members of the Canisius College community, to leverage enrollment with prospective students, and to improve administrative processes.

The LIS Plan takes place within the context of the broader plan, “A Transformational Education: The Strategic Plan for Canisius College” which recognizes that state of the art information resources and technology will be required. This plan will flesh out in more detail the role the Library and Information Technology Services will play in achieving these goals, particularly with regard to improving the student academic experience, employing online course delivery, realizing measures for institutional effectiveness and efficiencies, and communicating with all constituencies.

Technology has transformed the way we live, play, and learn. Our 21st century students, the millenials:

- do not remember a time when they have not used technology and expect to use it both socially and academically
- do not distinguish between the social and the academic aspects of their lives
- juggle school, family and jobs with highly scheduled daily schedules; often their prime study time extends beyond business hours
- expect that College information, services, and scholarship can be delivered electronically at any time
- prefer to be among their peers even when working alone and show a preference for peer support when help is needed
- prefer to leave a personal stamp in their own technology space. Students leave their mark on social networking sites such as Facebook where they can find people with whom they share interests
- are mobile. They maintain connectivity in lab and class sections to supplement their instructional activities. In game show terms, they have a "life-line" that can be always "on." Access may be in groups, and students may wish to participate in real-time collaboration

Faculty intellectual work and teaching have also changed over the years.

- There is an ever increasing body of scholarship that is available in electronic full-text. The increased emphasis on faculty research requires easy access to scholarly information resources.
- The new core curriculum and its emphasis on information literacy and assessment will also have an impact on the technology environment at the College. A real problem for both faculty and students is that there are so many ways to get into information, but no one way will do the job. Students, in particular, suffer because they believe they know the way to find digital information, but they are often in need of information literacy skills.
- Classrooms are expected to be places where active, technology-enabled teaching and learning takes place
The need for repositories for multimedia teaching resources and student projects are increasing

Faculty and students need common areas to interact, not only in class, but outside of class as well. Canisius College has created spaces that are a "third place" - not classroom and not residential room: breakout areas in Old Main, the library, department commons, and snack bars, for example. These are places for informal communication and brainstorming, in which collaborative groups can quickly associate and disassociate. Both millennials and faculty expect these spaces, as well as analogous virtual spaces, and they will expect them to be technologically enabled.

This LIS Long Range Plan offers initiatives in the area of information resources and technology that will move the College closer to its vision. Predicting the course of technology advancement is risky business. We know there will be change that we cannot predict with accuracy now. Flexibility and adaptability must be an important component of this plan.

Note-Numbering Scheme

The numbering scheme throughout this document reflects the numbering scheme in “A Transformational Education: The Strategic Plan for Canisius College.” Gaps in the numbering of sections of this LIS plan represent parts of the College Strategic Plan that are not explicitly addressed.

LIS Mission, Vision, & Goals

LIS Mission

Library and Information Services (LIS) is the information service organization of Canisius College. In support of the Canisius College Mission to offer outstanding undergraduate, graduate and professional programs distinguished by transformative learning experiences, LIS will provide library and information technology resources for instruction, research, and college administration.

In its role as a service organization, LIS will assist the operating areas of the College in the appropriate use of information resources and technology so that they may meet their stated objectives. In particular, LIS will seek to incorporate information resources and technology to improve instruction, research, and administration. LIS will serve as a collaborator in a distributed information technology and resources environment. LIS will also provide the collections, information infrastructure, and training that will be necessary to empower people to effectively utilize information resources and technology.

LIS Vision

LIS will build an ubiquitous information environment and provide assistance to maximize its benefit.

Convenient access to scholarly resources, widespread use of information resources and technology as components of active and personalized learning, improved administrative processes, improved communication among all in the Canisius College community, the ability to easily create digital content, the ability to create and sustain digital communities, and improved learning spaces are characteristics of this information environment.
Core values of LIS

**Care and respect for the whole person**
LIS is committed to a service philosophy that is in keeping with the Jesuit principle of concern and respect for the individual. In this spirit, individualized service will be provided whenever possible, and courtesy, understanding, and professionalism will characterize all dealings with LIS constituencies.

**Commitment to quality, excellence, and continuous improvement**
LIS will actively seek feedback from members of the Canisius College community on services provided to them so that improvements can be planned and delivered. The improved information environment will then serve as baseline for further improvements and feedback.

**Ethical Practices**
LIS will foster an atmosphere of trust, flexibility, and open communication between LIS personnel and others at Canisius College. LIS will honor the intellectual property rights of others.

**Utility**
LIS acquires information resources and technology to empower faculty, students, and staff to excel in their respective roles. LIS activities will be consistent with the Canisius College Strategic Plan.

**Efficiency**
LIS will deliver its services in a cost-effective manner. This calls for good stewardship of human resources, consumables, and capital items.

**Maintainability**
Where possible, LIS will use industry standard solutions rather than develop customized ones.

**Objectives**
LIS will help fulfill many goals described in “A Transformational Education: The Strategic Plan for Canisius College.” Nevertheless, this plan will focus on the goals and objectives for which the Associate Vice President for Library and Information Services is responsible.

In the sections that follow, excerpts from “A Transformational Education: The Strategic Plan for Canisius College” are highlighted, followed by LIS strategies and actions to support the achievement of that portion of the plan.

The progress of achievement of the plan’s elements will be reported to the Canisius Community on a regular basis.
I. Creating a Dynamic Urban University

Offer outstanding academic programs and learning experiences across the university that engage students, unlock their passion for learning and promote leadership development.

1. Develop and implement an integrated approach to student learning and development.
   d. Investigate, provide and promote utilization of state-of-the-art technology to enhance the student experience.

Strategies

i. Provide improved access to electronic information sources
   Action Steps
   1. Provide just-in-time access to current scholarship, including journal articles.
   2. Acquire an increasing proportion of both scholarly and recreational monographs in electronic media.
   3. Improve accessibility of online guides about research in disciplines
   4. Provide better “finding tools” that search across both book and journal sources (e.g. Summon at http://www.serialssolutions.com/discovery/summon/)
   5. Improve electronic access to Archives & Special Collections resources.

ii. Provide improved access to campus information, instruction, and services through technology
   Action Steps
   1. With the assistance of constituent groups, further develop the myCanisius portal and upgrade it as necessary to accommodate increased use
   2. Develop Web based applications directed at common student activities such as Major Changes and Course Withdrawal. These will be paperless, mobilized, and accessed through the myCanisius portal, wherever possible.
   3. Use virtualization techniques to provide access to instructional software remotely from student and faculty owned computers and mobile devices.

iii. Accommodate mobile computing
   Action Steps
   1. Offer a full range of information on mobile devices for the public, that is, an audience that would not need to authenticate (i.e. supply a username and password). Some example applications might include:
      a. Interactive map and directions
      b. Campus directory
      c. Griff scores
      d. Event calendar
      e. Campus news
f. Research assistance (e.g. text a librarian, other virtual reference services, and study guides)

2. Offer a full range of functionality on mobile devices for authenticated users. Some examples might include:
   a. Offer access to mobilized portals, including portals for admitted (but not yet enrolled) students, registered students, faculty, and staff.
   b. On the appropriate portal, offer a full range of appropriate services on mobile devices, including online registration, learning management system, library databases, course evaluation, club calendars, study room reservations, etc.

3. Offer electronic books and periodicals on mobile devices.

4. Provide access to classroom projection from mobile devices.

5. Provide charging stations for mobile devices.

iv. Improve the assessment process
   Action Steps
   1. Investigate and implement tools for accountability, assessment and learning analytics that will track learning and performance.
   2. Investigate e-portfolios.
   3. Add an Information Literacy Coordinator to the library staff that can help deliver the core curriculum with an assessable program of information literacy

v. Enhance the classroom teaching and learning experience
   Action Steps
   1. Plan and implement learning spaces with technology to promote collaboration.
   2. Install Smartboards in more classrooms.
   3. Install two projectors for two separate images in some classrooms.
   4. Install corner screens and use other strategies to keep writing board accessible. Install document cameras in more classrooms.
   5. Enable audio and video capture of the lecture for faculty who wish to use it, particularly in education for student teaching practice.
   6. Implement strategies in technology-enhanced classrooms to ensure they are fully functional at the beginning of each class.
   7. Provide a computer for the instructor in all classrooms.
   8. Provide additional document cameras in classrooms as needed.
   9. As an alternative to projection, provide flat panel displays in smaller classrooms.
   10. Where possible, provide maximum instructor mobility and support for active learning by utilizing wireless technology solutions.

vi. Improve computing and network infrastructure.
   Action Steps
   1. Provide appropriate network and computing infrastructure to support both general needs and the more demanding needs of specific programs such as Digital Media Arts.
2. Acquire a Learning Management System to replace ANGEL that will support all academic programs. Plan for and support conversion and training to the new platform.

3. Provide centralized data storage and backup of an employee’s college-owned desktop or laptop computer.

4. Implement and budget for an adequate replacement cycle for employees’ laptop or desktop computers (e.g., four years would be appropriate in the current environment).

5. Provide enhanced video capabilities.

vii. Facilitate collaboration among faculty in learning new technologies and peer mentoring.

   Action Steps
   1. Conduct regular survey of faculty and students with regard to technologies.
   2. Provide support for individual faculty choices in web technologies that promote teaching and learning excellence.
   3. Provide technology training for faculty in a variety of formats, including face to face, online, and mentors.
   4. Establish an interactive newsletter (e.g., blog) for instructional technology so that instructors and technologists may share information with others.

2. Promote excellence in all programs.
   d. Investigate, provide and promote utilization of state-of-the-art technology to maximize operational effectiveness in all areas of the university.

Strategies
   i. Provide improved access to campus information, instruction, and services through technology

      Action Steps
      1. With the assistance of constituent groups, further develop the myCanisius portal.
      2. Select and install a campus digital signage system.

   ii. Utilize technology to improve efficiency

      Action Steps
      1. Enhance Banner (the current Enterprise Resource Planning (ERP) system) with best-of-breed solutions, as appropriate, to foster targeted and cost effective enhancements to the current system (e.g., Student Health record keeping such as MedCat; faculty accomplishment recordkeeping such as Digital Measures).
      2. Start the process of investigating successors of the current Banner-based system (the current contract runs until 9/30/2019). A representative committee of faculty, administrators, and executives should be charged with this task approximately 24 months before this date.
      3. Leverage staffing, where possible, by adding technology (e.g., self-checkout in library so that staff resources can be shifted to
professional librarians to increase information literacy support for students).

4. Establish a campus wide policy that all substantive administrative software purchases are acquired only with the consultation of ITS professionals.

iii. Improve information flow across offices

Action Steps
1. Adopt a document management system for administrative processes and integrate it with the ERP to enable offices to easily add, index, and access documents electronically as well as manage their retention.

2. Develop new Online Applications with built in routing and acceptance rules to be used across Administrative Offices. These should particularly focus on student friendly processes that eliminate students from physically needing to visit multiple offices to complete transactions such as dropping a course or changing a major.

3. In collaboration with the Deans and Registrar, implement a curriculum management system. The process needs to include electronic approval, status tracking and constant communications with all interested parties.

4. Develop Web based applications directed at common student activities such as: Major Changes and Course Withdrawal. These should also allow for electronic approval flows to decrease the amount of time students need to spend walking paper around from office to office.

iv. Improve ability to hold meetings with remote participants (e.g. Board and Committees).

Action Steps
1. Provide robust video conferencing and desktop sharing from large conference rooms.

v. Improve mobile capability. (see also, Goal I, 1., iii, above)

Action Steps
1. Offer access to mobilized portals, including portals for admitted (but not yet enrolled) students, registered students, faculty, and staff.

2. Improve wireless network infrastructure to support multiple wireless devices per person.

3. Adapt mobile devices for point-of-presence display, data collection, and media creation.

vi. Improve voice communication

Action Steps
1. Replace Rolm telephone system by 2018.

2. Acquire telemarketing capability for call campaigns in Admissions and Advancement that integrates with the ERP.
vii. Use technology to improve the quality of management decisions
Action Steps
1. In collaboration with the Vice President for Business & Finance, develop or adopt technology capability to support Resource Centered Management.
2. In collaboration with the Vice Presidents and the Director of Institutional Research, develop or adopt technology to develop further the Executive Dashboard.

viii. Use alternate sourcing in the “cloud” (off-campus hosting)
Action Steps
1. All future considerations of server based applications additions should be compared with alternative sourcing, including hosting off campus and external development of capabilities (recent examples of this is the outsourcing of student email and campus portal).
2. Move administrative and faculty email and calendar services to the cloud.

e. Diversify delivery systems for courses and programs to respond to students’ learning needs and interests.¹

Strategies
i. Provide appropriate technology to support the implementation of the “Policies for Conducting Online Education at Canisius College”
Action Steps
1. Add 2-3 instructional designers to provide support for technology mediated course delivery. Alternatively, outsource development for select new programs.
2. Subscribe to appropriate professional organizations such as Quality Matters and Sloan-C consortium.
3. Provide appropriate tools for instructors (e.g. video & screencast creation; voice to text transcription) to create online content.
4. Provide robust video conferencing, desktop sharing, and chat for synchronous online sessions.

ii. Enhance remote access to services
Action Steps
1. Provide 24 x 7 Help Desk support.
2. Improve Learning Management System reliability (minimize unscheduled downtime)
3. Provide proof of identity for remote learners.
4. Provide equivalent library materials and services to remote learners.
5. Ensure accessibility for remote learners.

¹ Not specifically an LIS responsibility, but included for completeness. (Accountable: VP for Academic Affairs)
f. Complete phases I and II of the development of Science Hall and plan phases III and IV.  

Strategies

i. Install appropriate technology in Science Hall
   Action Steps
   1. See I.I.d, above
   2. Participate in planning technology for Science Hall Phases III and IV – offices, research labs and commons areas

ii. Improve access to science scholarship to support activities in Science Hall
    Action Steps
    1. Acquire research-grade citation index to support student and faculty science research
    2. Improve access to science scholarship

g. Make substantial progress on the development of the Library Learning Commons.

Strategies

i. Provide for students as the highest priority in planning
   Action Steps
   1. Provide increased seating to a total of at least 1000 seats for study
   2. Provide research support in person or virtually.
   3. Provide adequate library resources for both student scholarship and recreation.
   4. Provide technology enhanced collaborative learning areas for group activities and study
   5. Provide appropriate work areas for student tutoring.
   6. Provide full-service academic technology support for students and faculty, including support for creating rich digital content.
   7. Establish a library mentor program.
   8. Operate at least a portion of the building 24 x 7.

ii. Build a facility to have both practical and esthetic appeal
   Action Steps
   1. Lower or eliminate shelving to free sight paths to the windows.
   2. Provide additional seating adjacent to windows.
   3. Replace window treatments, carpeting, and lighting.
   4. Furnishings should be mobile and flexible.

iii. Build a facility that has 21st century technology
    Action Steps
    1. The building, services, and collections should support the ongoing transition to electronic materials.
    2. There should be both desktop computers and support for mobile devices.
    3. The library must provide for both those physically present and those who access services remotely.

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2 Not specifically an LIS responsibility, but included for completeness (Accountable: Vice President for Business and Finance, Vice President for Institutional Advancement, and Dean of the College of Arts & Sciences)
4. Expand undergraduate, graduate, and professional programs to build on existing strengths and explore new opportunities.

Strategies
i. Improve library collection and services for active curricula, particularly for expanding graduate studies.

Action Steps
1. (See I.2.g, Library Commons, above, and III.1.b, Doctoral studies, below)

III. Attracting the World

*Engage global partners to attract, educate, and develop a talented and diverse campus community as we act in the world for the greater good.*

1. Pursue university status for Canisius College
   b. Develop viable, mission-based doctoral education in the School of Education and Human Services.

Strategies
i. Improve access to scholarly materials to strengthen undergraduate curriculum and support graduate studies in select disciplines.

Action Steps
1. Acquire appropriate research materials for doctoral studies such as dissertation abstracts and research caliber citation index
2. Improve access to doctoral level journal and monograph collections in select disciplines.
3. Hire an additional reference librarian(s) with subject specialty in doctoral program(s) subject areas.
4. Hire an additional .5 FTE library technician to process the expected increase in interlibrary loan traffic associated with graduate faculty and graduate student research.

2. Develop and implement a comprehensive integrated marketing strategy.
   b. Develop a consistent marketing message for Canisius and a plan to deliver it to our many publics.

Action Steps
1. Provide adequate marketing for new online programs.

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3 Not specifically an LIS responsibility, but included for completeness. (Accountable: Dean of School of Education and Human Services)

4 Not specifically an LIS responsibility, but included for completeness. (Accountable: Associate Vice President for Public Relations and Director of Marketing)
c. Investigate, provide, and promote utilization of state-of-the-art technology to enhance effective communication for and about the college.

   Action Steps
   1. See Goal I, 1, iii, above for improved mobility technology.
   2. Enhance or replace the campus event management system.
   3. Utilize the Media Center where appropriate to create video for marketing purposes.
   4. Enhance the myCanisius portal.

V. Securing Our Future

   Encourage the development of new programs, sources of revenue, and new levels of efficiency in our operations.

1. Achieve metrics used to determine student success.

   b. Investigate and introduce integrated retention initiatives.

   Strategies
   i. Collaborating with Associate Deans, Advisors, and the Director of Student Success and Retention, ITS will use technology to identify and remediate risk to student persistence.

      Action Steps
      1. Develop improved web applications for Advisement and Students of Concern modules and tie into portal.
      2. Automate portal alerts to students that have failed to register for the upcoming semester or are otherwise at risk for persistence. Include easy access to links that will provide help and advice to these students. Provide the Retention Office with tools for follow-up and communication throughout the registration period.

   a. Undergraduate
   b. Graduate
   c. Professional
   d. Regional
   e. International
   f. Diversity
Strategies

i. Use technology to help achieve targets.

   Action Steps
   1. Develop a portal for deposited students to foster communication, cement relationship to the campus, and expedite information processing.
   2. Enhance dashboard web application so that progress can be monitored and managed. Help broker common definitions to facilitate reporting and interpretation.

Additional Strategies for Goal V: Securing our Future.

i. More involvement of Canisius senior leadership in ITS governance

   Action Steps
   1. Align ITS portfolio with institutional priorities by active involvement and guidance of the Senior Leadership team.
   2. Annual review of the ITS portfolio by the Senior Operating Team with opportunities for feedback to IT.

ii. Mitigate key personnel risk.

   Action Steps
   1. Cross train staff to provide some back-up capability for staff.
   2. Provide professional development experiences for promising staff.
   3. Selectively consider alternate sourcing opportunities
   4. Develop succession plan for ITS and Library leadership.
Assumptions about the technology & library landscape

General
1. Mobility, mobility, mobility...
   1.1. adoption of tablets, & smart phones increases for faculty, staff, & students. They will expect mobile “apps.”
   1.2. need to keep up with 802 wireless standards, now unofficially at “N”.
2. Digital formats dominate entertainment, telephony, security, and other applications.
   2.1. Networks, both external and campus, will have to accommodate them.
   2.2. Digital video is pervasive.
   2.3. Expanded storage to accommodate digital formats
3. User created web content (e.g. YouTube, Blogs, Wiki’s) is on the rise. Many will look to specialized providers such as YouTube, Rate My Professor, Facebook, Skype, Google+, etc.
4. Social networking (who are the user’s friends? What are their interests? How do they think about people and issues?) will have an increasing presence in higher education. Sites such as Facebook and RateMyProfessors will flourish. Higher education would be well served by learning how to incorporate this phenomenon into learning and research.
5. High definition video technologies spread into classroom projection and campus TV. TV content will be increasingly digital in native form.
   6.1. Increase in web based collaboration tools (e.g. Google apps for education)
7. Network bandwidth and storage costs continue to decline while capability increases at exponential rates.
8. The sizable technology infrastructure will need to be updated and replaced on a regular basis. But replacement strategies should include active consideration of moving more applications to the “cloud”, and those applications that remain should be migrated to virtualized servers.
9. Some of the current LIS leadership will be at or nearing the end of their careers by 2013; there should be responsible steps to provide professional development to the next "generation" of LIS leaders.

Instruction
1. For new and renovated classrooms, at least some faculty will favor high technology, but no podium or other impeding technology footprint. They will favor complete flexibility and the ability to easily move classroom furniture.
2. Better (faster & wireless) laptop integration into projectors and TV displays.
3. Automated classroom capture of audio/video for future review by students and faculty will be possible and affordable at least on a pilot scale.
4. Migration to digitized a/v formats for instructional/research support (e.g. recorded lectures) have some implications for network and storage, but also require better integration into Learning Management System (LMS).
5. The LMS will continue to be important, but there will be a greater variety of digital tools used for instruction.
6. There will be an increasing quantity of content useful for instruction from publishers.
7. Classroom projection and audio equipment will be able to accept input not only from the
instructor, but from the students.

8. The boundary between entertainment and instruction and social interaction will continue to blur. For example, iTunes U. will be successful. Among its other implication, this trend will use more campus bandwidth.

9. Culture of assessment grows, requiring such technology support as electronic portfolios and easy to use survey tools.

10. Canisius College will expand its Distance Education offerings as guided by the Presidential Task Force on Online Education.

11. With the increase in online education, the Help Desk increases in importance.

Library

1. Need for information literacy will increase as per the new core curriculum.

2. Library collections for serials and reference continue to aggressively migrate toward electronic media.
   2.1. Finding tools continue to evolve toward the Google model of ease of use.
   2.2. Global find tools will span information resources
   2.3. Better integration into portal & smart phone app resources will be required

3. Book digitization and, at least for titles that have cleared copyright, use becomes common through Google and others.

4. The Library needs an update, and will require flexible seating, tables, and movable group demarcations.

5. The library will further develop its Learning Commons.
   5.1. The Learning Commons will need adequate staffing from the library and its partners to succeed.
   5.2. The library will be seen as a learning place with learning services for tutoring, technology support, and reference.

6. Group projects and collaboration will need to be adequately supported in the library.

7. The library will increase its role as a broker in scholarly database acquisition to better support existing and emerging academic programs, particularly in graduate programs.

8. There will be new composite forms of scholarship (e.g. a book with a Wiki or website as associate publications) that will need to be supported for faculty.

9. As more of the traditional library collections commute between off-campus and on-campus locations, RFID emerges as the preferred method of library inventory control. This method also lends itself to self-checkout (no pun intended).

Administrative Computing

1. Portal, especially for internal constituents, will grow in importance.

2. Mobile apps will need to be acquired or built for both current and prospective students.

3. Sungard’s Banner will continue to evolve. We will continue to enhance it with web-based applications. Additionally better paperless communication and filing systems along with Dashboard style alerts and drill down reporting will improve management efficiency.

4. There will be credible competitors to Banner that the university should consider.

5. Business continuity will increase in importance.

6. There will be additional accountability & regulation requiring more robust retrieval of information for discovery, audit, etc.
Information Sources

- From the Horizon Report 2011 (http://wp.nmc.org/horizon2011/):
  - One year to adoption: electronic books, mobiles
  - Two to three years to adoption: augmented reality, game-based learning
  - Four to five years to adoption: Gesture-based computing, learning analytics

- From the Horizon Report 2010 (http://wp.nmc.org/horizon2010/):
  - One year to adoption: Mobile computing, Open content
  - Two to three years to adoption: electronic books, simple augmented reality
  - Four to five years to adoption: gesture-based computing, visual data analysis

- Educause top 10 Issues:

  3. Teaching and Learning with Technology
     - What strategies should the CIO use to determine which instructional technologies will meet the strategic goals of the institution?
     - How can IT leaders best provide support for the institution's technology tools, programs, and learning environments, particularly when the tools are constantly changing?
     - How can the CIO best advise the academic community about assessing and selecting proposed instructional technologies?
     - What are the best ways to collaborate with the institution's stakeholders to create integrated, scalable, and sustainable models and infrastructure for technology to support teaching and learning?
     - How will the institution keep up with the demand for 24/7 and mobile access to web-based instructional and student services?

  5. Mobile Technologies
     - Has the institution developed a strategic direction for supporting mobile technologies?
     - Is the institutional infrastructure adequately robust and flexible to accommodate the inevitable and rapid influx of diverse mobile devices from which users will expect to connect to network resources?
     - Does the institution's security strategy address access to sensitive systems and data by mobile devices, including the storage of sensitive data on those devices?
     - To what extent is the IT organization prepared to support the growing number and variety of mobile technology devices and uses?
     - How can the content delivered by the institution's information systems be adapted for effective utilization on mobile devices?