

2016 Technology Strategic Plan, William James College

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Committee Members:

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Additional Contributions:

AACARO Conference

EDUCAUSE Conference

Campus Technology Conference

The New Media Consortium (NMC)

Hawkins Round Table Members

- Timothy M. Chester, Vice President of Information Technology, University of Georgia, GA
- Charles Bartel, Associate Vice President/Chief Information Officer, Duquesne University, PA
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Vision statement

The Technology Strategic Planning Committee is charged to find technology oriented solutions and goals to improve educational and business efficiencies, as well as exploring additional opportunities to assist / contribute institutional goals and missions.

A successful executed technology strategic plan should result an increase in efficiency/productivity in college business and operations, as well as providing a set of key performance indexes (KPI) that can be served as measurements to the progress and success of the strategic goals.

Institutional Goals

- Strengthen the quality and competitive advantage of Academic Programs
 - Resources, Faculty Models, Clinical Research, Academic Outcomes, Facilities
- Add \$2.5M Alternative Revenues
 - Current and New enrollment/Advancement
- Create robust group of Mental Health Advocates; Capture the point position as Mental Health Convener/Consultant/Educator
- Expand culturally diverse Educational Programs; Increase Access to Care

Emerging Trends

The strategic plan is based on current and potential future challenges. The committee has gathered information from numerous publications, conventions, and group discussions such as

the Hawkins Round Table, and have compiled three emerging trends of what will likely to be key influencers:

Trend #1:

Accelerating technology innovations also means speeding up the changes in what is considered as “normative” for technology used in education, as well as what is expected by the newer generation of college students.

1. Increase in expectation of technology use in college by New Gen students.
2. Increase in adaption (both speed and options) of new educational technology in colleges to stay competitive and attract new gen students.
3. Differences of expectations in technology demands between college, faculty, and students. Colleges are not supporting technology that students want.
4. The pressure to increase digital literacy standards in current college administrative staff and faculty to deal with emerging technologies.

See Appendices –

- 2016 NMC Horizon Report
- MA Board of Education K-12 Technology Literacy Standards
- Gen-Z Research
- Education Technology and Faculty Development in Higher Education
- National Science Association - Higher Education: Generational Perceptions of Faculty/Student Classroom Behaviors, Attitudes, and Technology Integration
- EDUCAUSE Top 10 IT Issues 2016

Trend #2:

Exponential growth in cybercrime threats in Higher Education landscape may lead to more strenuous compliances, as well as demanding more college resources in detecting, protecting, reporting, and training on information security issues. Facing current and new IT issues, colleges in general are facing challenges in developing institutional IT resources while keeping control costs. Innovation must be made especially for smaller schools on IT operation to keep issues and budgets at bay.

1. Increase in cybercrime – Additional resources needed for:
 - a. New technology in intrusion detection and policy monitoring.
 - b. Review and enforcing current operational policies and procedures and creating new ones to adapt to current and emerging threats
 - c. Increase training using multiple approaches to promote awareness among college community.
2. Additional staffing needed for Information Security, while other competing goals also require resources. Colleges are facing a hard time striking a balance.
 - a. IT Budget is one topic that is almost on the top 10 IT Issue of all past years
 - b. Technology staff retention is the new concern this year.

See Appendices

- EDUCAUSE Top 10 IT Issues 2016
- Top 10 IT Issue Trends 2000-2016

Trend #3:

The stagnate population growth in Massachusetts (New England especially) over the next 5-10 years will lead to smaller pool of potential local traditional students as well as increase competition among colleges in similar geographical area. This may not affect specialized graduate level colleges, however, other pressures may come from any additional threats or change political landscapes as well as new laws and regulations targeting and affecting college tuitions. Colleges will need to be innovative to stay ahead in competition to survive by cutting cost (be more efficient), explore alternative revenue, reduce/remove geographical restrictions (in regulations and accreditations), and increase attraction to non-traditional students or international students.

1. College should explore/invest more on distance/online education as a primary method to gain more non-traditional students
 - a. More specialized programs to attract non-traditional students
 - b. Better understanding of the support needed of non-traditional students, which are usually different from traditional students and are not benefitted from traditional support infrastructure.
 - c. Expanding resources for online learning technology and support.
 - d. Creating center of excellence for online learning, targeting non-traditional students who have full time jobs in health or mental care industries
 - e. Current distance learning / CE programs have not reach its full potential.
2. Increase overall operation efficiency to do more with less.
 - a. Current ERP is inadequate in many fronts – and the college is wasting valuable labor hours in fighting inaccuracies.
 - b. Referencing Maturity Model and Maturity Model Self Audit – the college lacks operational maturity and therefore requires more resources to sustain growth. In order to gain maturity, any organization will need:
 - i. Defined/published procedures and standards
 - ii. Culture and accountability to enforce procedures and standards
 - iii. Regular training on established policies, procedures, and standards.
 - iv. Established internal monitoring and auditing practices to make sure operational policies and procedures are being followed.

See Appendixes -

- US Census Population Projections
- AACARO Changing Demographics
- Organization Maturity Model

Approach

A S.W.O.T analysis was conducted by considering the emerging trends and the current technology capabilities of the College by reviewing four specific areas using a capability assessment framework:

1. **Staffing** – Whether appropriate staffing level is maintained, and whether the staff have the appropriate skill level to perform necessary tasks.
2. **Technology** – Whether the appropriate technology is in place and have all necessary features.
3. **Information and Training** – Whether the staff is properly trained and well informed with the technology.

4. **Governance and Processes** – Whether a refined set of guidelines and policies related to the use of the technology has been observed, monitored, and audited.

Strengths:

- A specialized college means the college will not have to compete with other colleges with students in traditional sense.
- A (mostly) supportive community, and dedicated staffs who believe in the cause.
- A close to mature technology infrastructure comparing to other small colleges with 1000 students or less.
- Most of the required technology are deployed. What's needed are configuration, establishing policies/procedures, and training.

Weaknesses:

- Fewer defined policies and procedures also means fewer documentations and established knowledge, which means harder to deploy technology to automate cumbersome / mundane tasks to save time and labor.
- No established data definitions, no centralized data collection – which makes data collection harder and harder to provide real time data.
- Lack of cultural support to monitor, enforce, and train established policies and procedures.
- No institutional tracking of all projects and efforts being conducted in the college, this leads to sometimes redundant effort being conducted for the same goal.

Opportunities

- Federal funding and grants are available for educational technology, classroom technology, assistive technology, and media services.
- A smaller college means nimbler and easier to reform and innovate in operation efficiency.
- A smaller college means easier to deploy new technology due to cheaper licensing cost.
- Fewer defined policies and procedures means most changes can be fast-tracked.
- Existing college consortiums already exist and can be used as a resource to support projects in multiple fronts.

Threats (Challenges)

- Staff (of all levels), in general, are in a lower level of digital literacy competency thus adding challenges on technology implementation / usage / training.
- Almost all departments lack a dedicated “data owner” - or a staff with solid understanding of data management who manages departmental data.
- High central IT staff to institutional FTE ratio. Recent 2015 benchmark (Appendix: EDUCAUSE CRS 2015 Benchmark) put national medium between 7 to 8 IT FTE per 1000 Institutional FTE. The WJC ratio is estimated at approximately 5.5:1000. This means IT Office will be hard to accommodate future demands without expansion.
- “1 Person Department” for Education Technology and CE.
- No dedicated person (at least 0.5 FTE) on Information Security, Policies, Compliances, and Monitoring.
- No dedicated support for distance learning students’ (or Non-Traditional Students) cohort.

- Most of staffs are already wearing multiple hats and it is hard for a staff to maintain commitment on long term committees.

The Plan: Priorities and Goals in 5 Years

Suggested Goals

Priority One – Business Logics, Definitions, and Workflows

1. Institutional Project Management

- a. Create a functional area with designated staff for institutional project tracking and communication.
- b. Implement Institutional Wide Project Tracking Dashboard to communicate project goals and status reporting.
- c. Create a governance body to throttle the amount of projects going on in the college to help align priority and quality of the projects.

2. Institutional Workflow Optimization / Management

- a. Create a data point oriented intuitional data workflow map to provide a global view of all intuitional workflows.
- b. Identify redundant workflows or processes and then identify possible consolidation points.
- c. Identify straight forward workflows which are suitable for automation.
- d. Identify, obtain, and deploy an institutional workflow / form systems to assist in design, deploy, and track automated workflows.

3. Identify, obtain, and deploy the next generation ERP for the college to replace aging Campus Café. A modern ERP system can provide a solid foundation for both workflow and project management.

Priority Two – Data

1. **Establish an institutional data governance** body to be in charge of implementing data policies, definitions, and standards.
2. **Establish departmental data ownership** and provide proper training. **OR**, create the **Office of Records** as centralized institutional data owner.
3. Create a 5-year road map to **track institutional data goals**, and place data in the front and center as a primary institutional effort.
4. Create **institutional data definition and collection understanding guides**.
5. Perform departmental **data collection assessment** for each department as the primary method to monitor and enforce data policies.
6. Implementing a **Form ID system** to centrally identifying all institutional forms used to collect data points.
7. Create **centralized report repository** to disseminate the data collected.
8. **Data Warehouse** for Analysis and Research

Priority Three – Distance/Online Learning

1. Identifying the different needs of **non-traditional students**, and align institutional resources to **provide proper level of support**.
2. **Expand** the use of distance learning in CE, exploring more options to conduct online or hybrid events.
3. **Separating Moodle instances** to allow CE and other non-matriculated courses to have dedicated LMS to host necessary instructions, materials, and support platform for better management.
4. **Increase mobile presence** by exploring existing mobile solution integration points, such as Mobile Access for Moodle and mark-able PDFs. All new system implementation should have mobile access included in the consideration.
5. Redesign 3rd floor combo classrooms to allow better management and hosting of large events, and providing new **hybrid classroom capabilities** to allow synchronized recording / streaming of the event.
6. Design / Deploy a **portable solution for classroom session recording / streaming**.
7. **Increase available media support** to institution by adding a media specialist to process media requests among library, classroom, and marketing needs, as well as maintaining a digital media asset library.
8. Exploring options in licensing and technology for course materials, e-books, mark able PDFs, and video lectures to make it available to students **offline**.

Priority Four – Digital Literacy

Increase the overall digital literacy level and technology skill competencies of college staff.

1. Define specific technology skill set requirements for different job functional areas, and establish proper level of digital literacy requirements for new hires.
2. Incorporate technology skill requirement into job descriptions and job postings.
3. Perform digital literacy assessments on new hires to identify proper candidacy of new job roles.
4. Perform digital literacy assessments on current administrative staffs (or even faculty) to identify areas of strength and weakness for more targeted or mandatory training.
5. Develop and hold regular group training opportunities, providing staff free training resources.
6. Foster a culture of professional development and continuous learning, with incentives and recognitions. (What does our Org Psy Dept recommends?)
7. Designate Professional Development Ambassadors in various job function areas.

Appendix

Additional Files are attached to this report. See Appendix Folder.

1. NMC Horizon Report – 2016 Higher Education Edition, New Media Consortium, 2016

2. Changing Demographics: Why Nontraditional Students Should Matter to Enrollment Managers and What They Can Do to Attract Them, Becky Cooper, AACARO, 2008
3. 2015 EDUCAUSE Core Data Service (CDS) Benchmarking Report, 2015
4. EDUCAUSE Top 10 Higher Ed IT Issues, CDS, EDUCAUSE, 2016
5. Federal Grants for Digital Learning (<http://tech.ed.gov/funding/>), Office of Educational Technology, US Department of Education
6. Getting to Know Gen Z, Barnes and Nobles College, 2015
7. IT Issue Trends 2000-2016 Interactive Diagram, EDUCAUSE, <http://www.educause.edu/visuals/it-issues/trends/index.html>
8. Organizational Maturity Model, HP Enterprise, <http://community.hpe.com/t5/image/serverpage/image-id/21931iFCDBB74DF91C893C/image-size/original?v=mpbl-1&px=-1>
9. Massachusetts Technology Literacy Standards and Expectations, Massachusetts Department of Elementary and Secondary Education, 2008
10. Educational Technology and Faculty Development in Higher Education, EDUCAUSE Center for Analysis and Research, 2015
11. Chief Information Security Officer (CISO) Job Template Sample, Higher Education Information Security Council (HEISC), 2014
12. HEISC Information Security Guide, <https://spaces.internet2.edu/display/2014infosecurityguide/Home>