Technology Plan 2018-2023

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Independence Community College

Revision 2.5 (Final Draft)

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Revision History Table

Revision	Author	Date	Description
1.0	Eric Montgomery	3-1-2018	Initial Draft
2.0	Eric Montgomery	4-8-2018	Peer Review Revisions
2.1	Eric Montgomery	4-9-2018	Grammar and Spelling checks
2.2	Eric Montgomery	4-10-2018	Added Appendix A, B, C, D, F, G
2.3	Eric Montgomery	4-11-2018	Added Appendix E, H
2.4	Eric Montgomery	4-11-2018	Added Device Ages
2.5	Eric Montgomery	4-19-2018	Final Draft for Review

Mission Statement

Independence Community College serves the best interests of students and the community by providing academic excellence while promoting cultural enrichment and economic development.

Vision Statement

To be a community college that provides an exceptional educational experience by cultivating intellect, encouraging creativity, and enhancing character in a student and community centered environment.

Introduction

The Technology Plan, a guiding document for all of campus, is a revolving action plan providing comprehensive, medium-range planning for the next five years. It covers all areas of campus, including instructional and administrative functions (Records, Enrollment, etc.). Key features include goals for addressing the five major components of technology for effective education (learning, assessment, teaching, infrastructure, and productivity)[1]; initiatives and projects for the next five years; and a plan for continuous updates. Implementation will rest heavily with the Department of Information Technology, but also involve all campus users of technology.

The following document is a culmination of research surrounding multiple colleges, community colleges as well as four-year universities, Educause, Gartner and the National Education Technology Plan.

Prior IT Accomplishments

Several accomplishments have been made in the past three-year period of time, including the following:

Server Upgrades
The College migrated to an improved server environment that also included an enterprise level backup utility system to improve the performance of the Ellucian Power Campus Enterprise Resource Planning system.

Operational Enhancements
- Dynamics GP implementation which revamped our current Financial System.
- Implementation of the Power Campus ERP, moving away from the prior implemented Jenzebar system.
- Online Self Service and Portal for Students.
- Desktop Virtualization Interface development, which enabled students to access course material from a remote location through a private cloud, thus enhancing their levels of access and convenience.
- Complete Network, Wi-Fi, and datacenter replacement.

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[1] https://tech.ed.gov/files/2017/01/NETP17.pdf

Campus Technology Committee Membership

The Technology Advisory Committee reports to Council of Chairs. All advisory members are recruited by the Director of Information Technology. Currently there are three vacancies we are trying to fill within the committee.

Member	Role
Eric Montgomery	Director Information Technology ICC
Brett Gilcrest	Division Chair ICC
Brian Southworth	Division Chair ICC
Eric Rutherford	Division Chair ICC
Tonda Lawrence	Division Chair ICC
Laura McClure	Technology Instructor USD #446
Melissa Ashford	Faculty ICC
John Eubanks	Faculty ICC
Cody Westerhold	Student Affairs

Planning, Budgeting, and Effectiveness

1. Planning: Provide strategic long-term planning for campus-wide technology including infrastructure, hardware, software, and support services.

   a. Create a comprehensive, campus-wide technology plan for the next five years (2018-2023). The plan should include definitions of priorities, guidelines for decision-making, proposals for annual budgets for maintenance and replacement schedules when needed.

   i. The five-year plan should be updated annually and provide the basis for annual action plans.

   ii. The evidenced-informed planning process is expected to involve the regular assessment of campus technology needs.

2. Budgeting: Guide technology planning and decision-making processes allocating budgeted funds for technology purposes.

   a. Work with the Chief Financial Officer to develop budgeting and spending policies that accurately document total campus spending on technology.

   b. Review monthly/annual reports from Great Plains Dynamics regarding departmental budgeting and spending for technology.

   c. Create policies that guide the selection of hardware and software funded within existing budgets.

   d. Propose, annually, priorities for technology expenditures.

3. Enhancing Technology's Effectiveness: Strengthen the effectiveness of campus-wide technology through proposals for and evaluation of Information Systems' functions. In the near future, these should include:

   a. Developing technology replacement cycles for all categories of equipment.

b. Establishing college-wide information technology policies, procedures, and standards, including those involving emerging technologies.

IT Department Service and Support Strategy Changes

Over the last three years, the department of Information Technology has revamped the previous infrastructure to meet ever demanding needs. Due to the current change in infrastructure and the need to become more concentric around integration and less facilitation the department needs to implement a Centralized Support Technology.

Centralized Support Technology: To address concerns regarding staffing, after hours support and communication disconnects. The decision was made to propose moving the current help desk infrastructure to a 24x7x365 staffed outsourced solution starting July 2018. The goal was to include the IT staff in more projects and general meetings, while improving IT services and support at all campus locations.

Technology and Institutional Planning

Recognizing that Information Technology is a foundational tool for nearly all campus departments, the Technology Advisory Committee provides faculty, staff, community members, local businesses, administration and students with a voice in planning for technology. This technology plan is ratified by the advisory committee prior to submitting to the board of trustees for final approval whenever substantive changes are made, new policies are written, or new initiatives are added. The plan becomes effective upon board of trustee approval.

Guiding Principles

1. Technology resources must be focused on efforts that directly support priorities in the academic arena.

2. We will seek to work together rather than to create or expand duplicate solutions.

3. Academic and administrative users will strive to communicate their needs and goals as completely and clearly as possible to the Department of Information Technology.

4. The Department of Information Technology will actively solicit input from users and each other on product and service requirements and will include their input in our technology decision-making process.

5. We will work collaboratively as a community to evaluate and manage technology deployment projects utilizing project management best practices.

6. We will employ open standards and best practices where feasible and define our college technology architecture (specifications and guidelines.)

7. We will encourage exploration of technology innovation at Independence Community College.

8. We will provide and support tools and applications that facilitate electronic collaboration of the faculty, staff and students over diverse locations, in line with college goals.

9. The college should ensure that electronic information is readily available to those who need it to accomplish their jobs, regardless of either the physical location of the user or the information.

10. Institutional data should be well defined and accurate. Wherever feasible, information will be captured once, as close to the authoritative source as possible, electronically validated and shared with those who need access.

11. We will promote an environment that provides protection from unauthorized or inadvertent access, sabotage or disasters and ensures the availability, integrity and confidentiality of information yet does not unduly hinder the college from conducting business as usual.

12. As a college community, we will adopt an IT service lifecycle process that provides robust and cost-effective enterprise services.

13. Highly routine manual processes will be automated when real benefits can be achieved and documented.

14. We will consciously establish quality objectives for each technology service and measure performance against those objectives. We will proactively identify and efficiently resolve all issues associated with the quality of our services.
Users should understand what they can expect in terms of service availability and responsiveness. Service levels will vary depending on the classification of a service - e.g. pilot or production. In some cases, we may consciously decide that perfection is not the level of quality necessary and may seek 'good enough'.

15. We will facilitate training and support for approved technology purchased by the college.

Prioritization Rubric

The following table is the rubric upon which ICC prioritizes technological needs. Program Review drives these prioritizations. However, in the case of state government, federal government, or other funding agency mandates, these technology needs will receive top priority by the College.

Number	Criteria	Weight
1	Extent to which request is identified in institutional program review	80%
2	Role of the technology in supporting curriculum or College services	10%
3	Extent to which the request represents a collaborative effort to use technology resources more effectively	5%
4	Sustainability of the technology in terms of ongoing support requirements and replacement costs	5%

Maximum Points   100%

Information Technology Strategic Plan

Significant changes were made to goals and objectives in order to make them more strategic and less tactical/operational in nature. Reviewing HLC recommendations, Student and Employee Satisfaction Survey results affirmed that the goals and objectives as stated within the Technology plan are in alignment with the Mission and Vision of Independence Community College.

Goal #1 Student Success

Key Performance Indicator(s):
- 1st to 2nd term retention rates
- 1st to 2nd year retention rates
- Graduation and completion rates
- Student satisfaction with Wi-Fi, mobile technologies, classroom and lab technologies, and technology training

Objectives	Dependencies	Responsible Party	Fiscal Year
1.1 Enhance the First Year Experience to support new student transitions and first-to-second year retention rates.	Website, Portal		
1.2 Support the use of technology that expands outreach to high school students/teachers for assessing and addressing basic skills needs prior to students entering ICC.			
1.3 Assess the viability of a Smartcard system to enhance the use of electronic student identification technology that enables integrity of learning	Hardware, Software, 3rd Party		
1.4 Enhance student training offerings to support their success in using new technologies.	Website, Portal, Technology Documentation		
1.5 Utilize business intelligence solutions (such as digital dashboards) to make informed decisions to support student success and communicate college-wide retention and degree-completion indicators.	Argos, Dashboards, Portal		
1.6 Collaborate with Institutional Research to identify technologies that compile student learning outcomes, assess program effectiveness, and manage data and documentation for regional and specialized accreditation standards.	Surveys, Dashboards, Portal		
1.7 Collaborate campus wide to assess and prioritize technology solutions that enhance student learning, success, and satisfaction.			
1.8 Evaluate and implement tools to audit the ICC learning management system, and portal to ensure ADA compliance.			
1.9 Evaluate and implement a 24x7 365 help desk solution to support student success.	Funding, Board Approval		

Goal #2 Innovation

Key Performance Indicator(s):

- % of network uptime
- Campus constituent satisfaction with communication technologies, including the portal
- # of courses using mobile technologies
- Cost savings from desktop virtualizations
- Increase student use of mobile technologies in the classroom

Objectives	Dependencies	Responsible Party	Fiscal Year
2.1 Collaborate with faculty and administrators to pilot mobile technologies projects that use technology to support alternate delivery systems.	Training		
2.2 Expand desktop virtualization throughout disciplines to enhance remote access to campus systems and applications.	Training, Licenses		
2.3 Evaluate and implement security technologies to ensure the privacy and integrity of information resources (such as password management).	Software		
2.4 Identify technologies (such as constituent relationship management solutions and communication tools) that support of ICC's Strategic Enrollment Plan.			
2.5 Extend laptop and tablet purchasing within ICC's bookstore for students.	Vendor Collaboration		
2.6 Investigate a Bring Your Own Device, BYOD, program for all faculty and staff, including a possible technology stipend.	Vendor Collaboration, Board Approval		

Goal #3 Operational Efficiencies

Key Performance Indicator(s):

- Identification and deployment of ERP audit recommendations
- Senior leader and departmental manager satisfaction with access to quality data for decision-making and reporting, as measured on campus surveys
- Time savings from technologies deployed to enhance operational efficiencies
- Faculty and staff satisfaction with document management strategy

Objectives	Dependencies	Responsible Party	Fiscal Year
3.1 Assess opportunities to enhance the use of existing and new technologies (such as workflows, Forms, and automation of manual processes) to improve college operational efficiencies.	ERP		
3.2 Collaborate with Human Resources to identify ways to use technology efficiently to recruit, hire, onboard, and train highly qualified candidates that have diverse skill sets.	Security, Training		
3.3 Continue to enhance training to support faculty and staff in effectively using new and existing technologies in their efforts.	Training, Technology		
3.4 Provide for disaster recovery/business continuity plan.			
3.5 Utilize business intelligence solutions (such as digital dashboards) to make informed decisions to support institutional effectiveness and departmental success.	Argos, Portal		
3.6 Explore opportunities shareware, and open source to expand capacity and reduce costs.			
3.7 Identify classroom equipment configurations and technology that address the needs of members of the College community.			
3.8 Develop a document management strategy that establishes a standard methodology and collaboration tools for storing, sharing, and updating documents internally.	Training, Documentation		
3.9 Conduct an independent audit of the Power Campus Enterprise Planning Resource system and third party applications to identify opportunities to meet institutional needs and optimize enterprise systems	ERP		

Goal #4 Engagement

Key Performance Indicator(s):

- # of distance education/online student enrollments
- Community Outreach
- Grants revenue

Objectives	Dependencies	Responsible Party	Fiscal Year
4.1 Collaborate with Departments to identify grant opportunities, and utilize resources	3rd Party		
4.2 Work with College and local community members to investigate technology to more fully integrate ICC with community.	Public Relations		
4.3 Deploy technology to expand/improve communications and relationship with external constituencies.	Software		
4.4 Identify opportunities to use technology in support of the institutional vision for enrollment growth, course offering efficiencies, and quality services.	ERP, Portal		

Next Steps

The next step will be to outline the action items that will achieve each goal and its objectives set forth in the implementation grids. The College values the importance of metrics and accountability and the Technology Plan incorporates measurements to provide evidence of progress and achievement of the goals set forth in the plan. The Implementation Grids contain suggested Key Performance Indicators (KPIs). Baseline and target measurements of the selected KPIs should be established to insure progress can be properly monitored during the life of the plan.

An important culmination of this process is communicating the plan to the College community. This will ensure the vision for technology use is shared among all of the constituencies served. Future communication on both changes to and progress on the plan should also be conveyed on a continuing and timely basis.

This plan should serve as a basis for the annual operational plan which outlines tactical action items that align to the goals and objectives. Additionally, as some goals are dependent on funding, the Technology Plan will feed into the budgeting process for technology for the coming five years.

Radical shifts in the environment that invalidate some of the planning assumptions should trigger a review of the plan for continued relevance. Without this examination, new opportunities could be missed.

Plan Maintenance

The Technology Plan will be reviewed and updated each Fall Semester based on information learned from the assessment activities of the prior academic year. Changes to the campus strategic plan, and the identification of new needs and opportunities. This cycle allows ICC to decide what funding should be requested prior to the budget proposals being submitted in April/May. New actions will be added to the plan and the budget requests will be made to support them. Completed actions will be removed or become part of the Technology Plan archive.

Appendix A

Network Acceptable Use Policy

I. Purpose

The College Network incorporates all electronic communication systems and equipment at the Independence Community College (the "College"). This Network Acceptable Use Policy ("AUP") sets forth the standards by which all Users may use the shared College Network.

The College Network is provided to support the College and its mission of education, service, and research. Any other uses (other than permitted personal use as discussed below), including uses that jeopardize the integrity of the College Network, the privacy or safety of other Users, or that are otherwise illegal are prohibited. The use of the College Network is a revocable privilege.

By using or accessing the College Network, Users agree to comply with this AUP and other applicable College policies which may be implemented from time to time, as well as all federal, state, and local laws and regulations. Only Users are authorized to use and/or access the College Network.

The term "User" refers to any faculty, staff, or student associated with the College, as well as any other individual with access to computers or other network devices that have been approved by the Chief Information Officer for connection to the College Network. This definition includes, but is not limited to, contractors, visitors, and temporary affiliates.

II. Principles

General requirements for acceptable use of the College Network are based on the following principles:

1. Each User is expected to behave responsibly with respect to the College Network and other Users at all times.
2. Each User is expected to respect the integrity and the security of the College Network.
3. Each User is expected to behave in a manner consistent with College's mission and comply with all applicable laws, regulations, and College policies.
4. Each User is expected to be considerate of the needs of other Users by making every reasonable effort not to impede the ability of others to use the College Network and show restraint in the consumption of shared resources.
5. Each User is expected to respect the rights and property of others, including privacy, confidentiality and intellectual property.
6. Each User is expected to cooperate with the College to investigate potential unauthorized and/or illegal use of the College Network.
7. Each User is expected to respect the security and integrity of College computer systems and data.

III. Prohibitions

Without limiting the general guidelines listed above, unless expressly agreed to by the Chief Information Officer, the

following activities are specifically prohibited:

1. Users may not attempt to disguise their identity, the identity of their account or the machine that they are using.
2. Users may not attempt to impersonate another person or organization. Users may likewise not misuse or appropriate the College's name, network names, or network address spaces.
3. Users may not attempt to intercept, monitor, forge, alter or destroy another User's communications. Users may not infringe upon the privacy of others' computer or data. Users may not read, copy, change, or delete another User's data or communications without the prior express permission of such other User.
4. Users may not use the College Network in a way that (a) disrupts, adversely impacts the security of, or interferes with the legitimate use of any computer, the College Network or any network that the College connects to, (b) interferes with the supervisory or accounting functions of any system owned or managed by the College, or (c) take action that is likely to have such effects. Such conduct includes, but is not limited to: hacking or spamming, placing of unlawful information on any computer system, transmitting data or programs likely to result in the loss of an individual's work or result in system downtime, sending "chain letters" or "broadcast" messages to lists or individuals, or any other use that causes congestion of any networks or interferes with the work of others.
5. Users may not distribute or send unlawful communications of any kind, including but not limited to cyberstalking, threats of violence, obscenity, child pornography, or other illegal communications (as defined by law). This provision applies to any electronic communication distributed or sent within the College Network or to other networks while using the College Network.
6. Intentional access to or dissemination of pornography by College employees, temporary staff, contractors, or vendors is prohibited unless (1) such use is specific to work-related functions and has been approved by the respective manager or (2) such use is specifically related to an academic discipline or grant/research project. This

provision applies to any electronic communication distributed or sent within the College Network or to other networks while using the College Network.

7. Users may not attempt to bypass network security mechanisms, including those present on the College Network, without the prior express permission of the owner of that system. The unauthorized network scanning (e.g., vulnerabilities, post mapping, etc.) of the College Network is also prohibited.

8. Users may not engage in the unauthorized copying, distributing, altering or translating of copyrighted materials, software, music or other media without the express permission of the copyright holder or as otherwise allowed by law. Information on the Digital Millennium Copyright Act can be found at:http://www.copyright.gov/legislation/dmca.pdf and the Copyright Act at: http://www.copyright.gov/title17/.

9. Except as allowed under the Personal Use Policy or the Policy on Use of College Resources in Support of Entrepreneurial Activities. Users may not use the College Network for private business, commercial or political activities, fundraising, or advertising on behalf of non-College organizations, unlawful activities, or uses that violate other College policies.

10.Users may not extend or share with public or other users the College Network beyond what has been configured accordingly by the Department of Information Technology. Users are not permitted to connect any network devices or systems (e.g., switches, routers, wireless access points, VPNs, and firewalls) to the College Network without advance notice to and consultation with the Department of Information Technology at the College.

11.Users are responsible for maintaining minimal security controls on their personal computer equipment that connects to the College Network, including but not limited to: current antivirus software, current system patches, and strong passwords.

12.Users may not violate any laws or ordinances, including, but not limited to, laws related to copyright, discrimination, harassment, threats of violence and/or export controls.

IV. Review and Penalties

The College reserves the right to review and/or monitor any transmissions sent or received through the College Network. College access to electronic mail on the College Network is permitted in accordance with the College's Policy on the Privacy of Electronic Information. Access to other transmissions sent or received through the College Network may occur in the following circumstances:

1. In accordance with generally accepted, network-administration practices.

2. To prevent or investigate any actual or potential information security incidents and system misuse, if deemed necessary by authorized personnel.

3. To investigate reports of violation of College policy or local, state, or federal law.

4. To comply with legal requests for information (such as subpoenas and public records requests).

5. To retrieve information in emergency circumstances where there is a threat to health, safety, or College property involved.

Penalties for violating this AUP may include:

6. Restricted access or loss of access to the College Network;

7. Disciplinary actions against personnel and students associated with the College.

8. Termination and/or expulsion from the College, and Civil and/or criminal liability.

The College, in consultation with its legal counsel, may contact local or federal law enforcement authorities to investigate any matter at its sole discretion.

V. Policy Updates

The College reserves the right to update or revise this AUP or implement additional policies in the future. Users are responsible for staying informed about College policies regarding the use of computer and network resources and complying with all applicable policies. The College shall provide notice of any such modifications or amendments by email to the College community. Any such modification shall be effective immediately upon notice being provided regardless of whether subscriber actually reads such notice. The current version of this policy can be found at ??.

VI. Additional IT Acceptable Use Policies

Additional policies related to the acceptable use of other IT systems and services at the College can be found at ?? .
Data Network Infrastructure Policy
Policy on the Privacy of Electronic Information
Personal Use Policy
Policy on Use of College Resources in Support of Entrepreneurial Activities

Data Network Infrastructure Policy

As with any large public utility, such as basic telephony services or electrical distribution, the College

communications infrastructure needs to be centrally planned, managed and maintained. It is only through centrally coordinated information technology strategic planning and implementation that the core technology goals of the institution are met.

An aggregation of separate, discrete, and privately-managed backbone or "backbone-like" data, voice or video networks does not constitute a utilities infrastructure that can meet these institutional goals nor does it provide for the best and most efficient return on the College's investment in this infrastructure.

To ensure a high-performance, high-availability, production-quality communications infrastructure at Independence Community College, the Department of Information Technology must provide a number of components and architectural considerations, as described below.

To ensure reliability, security and efficient use of limited resources, the Department of Information Technology must

develop and implement the physical connectivity design: how buildings connect to the campus fiber infrastructure. The design architecture for the physical layer consists of all campus buildings being designated as hubs or spurs, based on the fiber path and proximity to other buildings. All spur buildings connect to a high-speed switch port in an adjacent hub building. All hub buildings connect to high-speed switch ports in the Cessna Learning Center not only for security and high-reliability considerations, but also for high-performance connectivity to the Department of Information Technology's production systems and to the Internet.

To ensure compatibility, mobility, bandwidth and security, the Department of Information Technology must design, implement and maintain the campus networking architecture. This higher layer architecture is currently based on high-speed switching technologies, with support for virtual LANs and Layer 3 switching, incremental bandwidth upgrades where appropriate (based on proactive traffic management), and support for meshed topologies to allow for

load balancing and alternate paths.

To ensure compatibility and high performance, the Department of Information Technology must maintain campus Internet connectivity. This connectivity is presently based on redundant high speed links to Cable One and AT&T, which requires a single campus entity for coordination and management.

To ensure reliability, the Department of Information Technology must support a 8Å~5-staffed operations center to provide proactive performance monitoring and to react immediately to any unscheduled outages. This also includes maintaining appropriately configured spares of all network electronic components.

To ensure security, only appropriate Department of Information Technology personnel will be permitted to monitor traffic over backbone links through network protocol analyzers (sniffers). The design of both the fiber physical connectivity and of the networking architecture do not allow random, unauthorized traffic eavesdropping across the links: all fiber terminations are in locked cabinets, port mirroring is permitted only through the secured network management system, and the nature of network switching eliminates the shared topologies of earlier network systems. In any case, the Department of Information Technology continues to maintain that the emphasis on security needs to be at the host system level.

To ensure reliability, security and high performance, the Department of Information Technology must provide central management of network devices and systems to the wall-plate in all Independence Community College locations. Any and all data network electronics must be managed by the Department of Information Technology. This includes any and all 802.11 WiFi wireless access points and switches. Note: On-campus resident students will not be allowed to use networking equipment (i.e. home routers, hubs).

In addition to the requirement that only the Department of Information Technology can install and maintain switches and routers on the campus data network, no device with multiple network interfaces (including, but not limited to, VPN gateways, firewalls, and servers) can be connected to the network without advance notice to and consultation with the Department of Information Technology. This advance notice must be submitted in the form of a Help Desk ticket. Failure to provide this advance notice will result in said devices being isolated from the network, and unable to communicate on the network. If the connection of said device is of an emergency nature (such as replacing an existing device), the ticket can be marked as Critical and we will receive immediate notification.

Policy on the Privacy of Electronic Information

I. Introduction and Purpose of this Policy

This Policy clarifies the applicability of law and certain other College policies to electronic mail and the College's Policy on the privacy of electronic information. Users are reminded that all uses of the College's information technology resources, including electronic mail, are subject to all relevant College policies and relevant state and federal laws, including federal copyright law.

Appropriate use of College electronic resources includes instruction, research, service, and the official work of the offices, departments, recognized student and campus organizations, and other agencies of the College, and as

described below, incidental personal usage by faculty, staff, and students. Since resources are not unlimited, the College may give priority for resources to certain uses or certain groups of users in support of its mission. Consistent with the College's non-discrimination policy, the use of information resources should not be denied or abridged because of race, creed, color, sex, sexual orientation, religion, national origin, age, or physical disability.

II.Privacy of Email Files

The College encourages the use of electronic mail and respects the privacy of users. It does not inspect or monitor electronic mail routinely, nor is the College responsible for its contents. Nonetheless, users of electronic mail systems should be aware that, in addition to being subject to authorized access as detailed below, electronic mail in its present form cannot be secured and is, therefore, vulnerable to unauthorized access and modification by third parties. Receivers of electronic mail documents should check with the purported sender if there is any doubt about the identity of the sender or the authenticity of the contents, as they would with print documents.

Users of electronic mail services also should be aware that even though the sender and recipient have discarded their copies of an electronic mail record, there may be back-up copies of such electronic mail that can be retrieved on College systems or any other electronic systems through which the mail has traveled.

College electronic mail services may, subject to the foregoing, be used for incidental personal purposes provided such use does not interfere with College operation of information technologies including electronic mail services, burden the College with incremental costs, or interfere with the user's employment or other obligations to the College.

Access by authorized College employees to electronic mail stored on the College's network of computers may be necessary to ensure the orderly administration and functioning of College computing systems. Such access, gained for purposes such as to back up or move data, ordinarily should not require the employee gaining access to the electronic mail to read messages. The College requires employees, such as system administrators, who as a function of their jobs routinely have access to electronic mail and other electronically stored data to maintain the confidentiality of such information.

Access to electronic mail on the College's network of computers that involves reading electronic mail may occur only where authorized by the College officials designated below and only for the following purposes:

1. Troubleshooting hardware and software problems, such as rerouting or disposing of undeliverable mail, if deemed necessary by the Chief Information Officer or his or her authorized designee.

2. Preventing or investigating unauthorized access and system misuse, if deemed necessary by the Chief Information Officer.

3. Retrieving or reviewing for College purposes College-related information*.

4. Investigating reports of violation of College policy or local, state, or federal law*.

5. Investigating reports of employee misconduct. *

6. Complying with legal requests for information (such as subpoenas and public records requests)*; and

7. Retrieving information in emergency circumstances where there is a threat to health, safety, or College property involved*.

*The system administrator will need approval from the President and General Counsel or their designee(s) approved by the President to access specific mail and data for these purposes. The extent of the access will be limited to what is reasonably necessary to acquire the information for a legitimate purpose.

In addition to the foregoing, when a College employee leaves employment or when a student graduates or otherwise withdraws from the College, a system administrator may, with approval of the unit head to which the employee was assigned or in which the student was enrolled, remove the departing employee's or student's email files from College systems in order to conserve space or for other business purposes. An employee's email may be retained and accessed by the unit as necessary for use in connection with College business. A student's email should be deleted unless otherwise required in connection with College business. In all such cases the extent of the access will be limited to what is reasonably necessary to acquire the information for a legitimate purpose. Units and departments are encouraged to make arrangements for disposition of email files with departing employees and students in advance of their departure.

III. Privacy of data, other than electronic mail, stored on College computers and networks

As is the case with electronic mail, access by authorized College employees to electronic data stored on the College's network of computers may be necessary to ensure the orderly administration and functioning of College computing systems. Such access may require the employee gaining access to the data to read specific files. The College requires system administrators and other employees who, as a function of their jobs, routinely have access to electronically stored data, to sign statements agreeing to maintain the confidentiality of such information.

In order to conduct its business without interruption, the College must have access to data stored on College

computers and networks. Accordingly, for legitimate business purposes, the head of any College administrative unit or department may in his or her discretion authorize the accessing or retrieval of any files other than electronic mail stored on College computers under that unit or department's control. Where necessary and appropriate, College network support personnel may assist with retrieval of such information on behalf of a unit or department, even if the information is stored at a site other than the unit or department's computer systems.

There is no guarantee of privacy or confidentiality for documents or data stored on College-owned equipment.

IV. Public records consideration

Electronic mail and other data stored on College computers may constitute a public record like other documents subject to disclosure under the Kansas Public Records Act or other laws, or as a result of litigation. However, prior to such disclosure, the College evaluates all requests for information submitted by the public for compliance with the provisions of the Act or other applicable law.

Destruction of such records is governed by the Records Retention Policies of one's unit of employment. Information about such policies is available from one's supervisor. Incidental personal electronic mail may be destroyed at the user's discretion.

V. Conclusion

Wherever possible in a public setting, individuals' privacy should be preserved. However, there is no guarantee of privacy or confidentiality for data stored or for messages stored or sent on College-owned equipment. Persons with questions about the applicability of this Policy to specific situations should contact the Human Resources Department.

Violations of College policies governing the use of College electronic resources, including mail services, may result in restriction of access to College information technology resources in addition to any disciplinary action that may be applicable under other College policies, guidelines or implementing procedures, up to and including dismissal. Suspected violations of College Policy may be reported to helpdesk@indycc.edu.

Personal Use Policy

The use of the College's resources and services for non-official purposes is permitted only in compliance with the following criteria:

1. The cost to the College must be negligible.

2. The use must not interfere with a College employee's obligation to carry out College duties in a timely and effective manner. Time spent engaged in the non-official use of College resources is not considered to be College work time.

3. The use must in no way undermine the use of College resources and services for official purposes.

4. The use neither expresses nor implies sponsorship or endorsement by the College.

5. The use must be consistent with state and federal laws regarding obscenity, libel, or the like, and state and federal laws and College policies regarding political activity, the marketing of products or services, or other inappropriate activities.

6. Users should be aware that internal or external audit or other needs may require examination of uses of College resources or services and should not expect such uses to be free from inspection.

Application: Each case will depend upon the particular circumstances and other important factors such as materiality or reasonableness. The ultimate control, therefore, lies with each employee's supervisor, as that person should have direct knowledge of the behaviors and needs of the individual employee.

Appropriateness of Practices: Employees should consult with their supervisors in advance if they have any questions about appropriateness of certain practices. A supervisor's decision cannot, however, circumvent other policies and procedures of Independence Community College that may restrict personal use beyond the limitations cited herein. For example, the use of the College's telephones, fax machines, mail services, and vehicles must comply with existing College policies, and the use of College resources in political activity is prohibited.

Telephones and Fax Machines: Only calls related to College business may be charged to College lines or calling cards. Personal calls may not be billed to College telephone numbers. Personal long distance calls may be made from College telephones only when these calls are placed as credit card, collect, third number (non-College) calls. This telephone policy also applies to the use of College fax machines.

Mail Services: College Mail Services states, "The campus mail system will be used solely for the distribution of U.S. mail delivered to the Campus Mail Center and for intra-College mail, including publications produced by the College or its related units but excluding student publications." The College mail system will not be used for the distribution of non-College related publications that are designed primarily for free circulation, nor for printed publications containing only advertising or designed primarily for advertising purposes. Use of the campus mail system for real estate advertising, chain letters, or private use for personal advantage is specifically prohibited. Individuals or departments that abuse the campus mail service will, at a minimum, be billed regular first class

postage for all copies distributed.

Vehicles: A supervisor also cannot allow the use of a State vehicle that is not in compliance with Motor Pool Policy.

Political Activity: Political activity by College employees is regulated by Federal and State law and College policy. No employee may use College funds, vehicles, equipment, supplies, or other resources in connection with partisan political activities. This includes the use of College electronic resources.

Reason for Policy

Public Trust: The College deals constantly with the public's perception of how we conduct the business of the College. All College employees must be constantly mindful of the public trust that we discharge, of the necessity for conducting ourselves with the highest ethical principles, and avoiding any action that may be viewed as a violation of the public trust. As custodians of resources entrusted us by the public, government entities, and private donors, we

should always be mindful of how we utilize these resources. As members of a campus community, we should also be

mindful of our responsibility to act so that others are not deprived of access to these same resources as they perform their duties. These resources include, but are not limited to, employee's time, facilities, supplies, and equipment, such as telephones, fax machines, and computers.

Accountability: In any business environment, however, accountability must be balanced with a consideration of the needs of employees to carry on normal day-to-day responsibilities related to their personal lives. The complex task of balancing accountability to the State with the life-needs of employees calls for the College to provide direction for managers when weighing these two essential obligations.

Support of Entrepreneurial Activities

Independence Community College values and supports entrepreneurial activity by faculty. Consistent with the College's goal to support the economic development of the Independence and the State of Kansas, entrepreneurial activities of College faculty are considered part of their duties. Faculty use of College resources in support of appropriate entrepreneurial activities may be allowed provided these activities do not conflict with applicable policies regarding use of public facilities for private gain. Incidental and minimal use of office, library, personal desktop work stations, storage servers, communication devices, or clerical staff is permitted.

For the purpose of this policy, "entrepreneurial activities" performed by a member of the College faculty as part of College duties are activities that contribute to the College's economic development, technology transfer or other public service goals. Examples include environmental or educational issues, a startup company in which the College expects to acquire an equity position through licensing College intellectual property, or activities in support of the development of a licensing agreement with an established company. Where activities are undertaken purely for an employee's personal gain without connection to the College's mission, use of College resources in support of such activities is not appropriate except as otherwise allowed by College policy.

Consulting activities undertaken as allowed are not considered entrepreneurial activities that are part of the faculty member's College duties unless they are so noted.

While this policy is meant to clarify and encourage such activity, faculty should be aware that other current College policies remain in place and are thus applicable to certain aspects of entrepreneurial activity.

Appendix B

Technology Purchasing Policy

The following policies relate to adding network lines, adding additional computers and printers, and computer installations. These policies are necessary in order to control the total College costs related to the support and replacement of the computers and related items and to provide a more timely installation of new computers. Each computer or printer network line incurs costs related to installation, upgrading, support, software licensing, Internet connection, etc. The following policies have been adopted to help control the total costs for this computer support.

Replacing a computer or printer. A new computer/printer purchase is considered a replacement when an older computer or printer is returned to the Department of Information Technology. The replacement of a computer or printer must be initiated by the Division Chair and have appropriate budget funds allocated. It also requires the approval of the Academic Dean, Departmental Directors or their designated representatives.

Adding a computer or printer. A new computer/printer purchase is considered an additional computer or printer when an older unit is not returned to the Department of Information Technology. The addition of a computer or printer must be initiated by the Division Chair and approved by the Academic Dean (academic departments), Departmental Directors or their designated representatives (administrative departments).

Redeployment of computer. To request a redeployment of an existing computer, please submit a request to helpdesk@indycc.edu. **Files existing on the computer will not be transferred**.

Network lines. A Division Chair should contact the Department of Information Technology to request installation of a new network line or for the re-activation of an unused network line. The Department of Information Technology will charge the department the cost of the line installation.

ICC provides each employee with a Primary Office computer that will be replaced on a regular basis. Additional computers, e.g. computers for certain research needs or specialized job requirements, are allowed with the approval of the Academic Dean (academic departments) or Departmental Directors or their designated representatives (administrative departments). Additional computers will not be automatically replaced through the normal annual budget process.

Notebooks. Because notebook computers cost more than desktop systems, the purchase of an additional notebook computer or a notebook computer to replace a desktop unit must be approved by the Academic Dean (academic departments), Departmental Directors or their designated representatives (administrative departments) before the purchase is initiated.

Mobile devices. Purchases of iPads and other approved tablet devices are authorized for College employees who are vice presidents, deans, associate/assistant vice presidents, and associate/assistant deans. Other employees needing such a device must demonstrate the need and purpose for the device and have approval in the form of an email or signed letter from their

Academic Dean (academic departments) or Departmental Director (administrative departments) requesting that a tablet device be purchased. Tablet devices are not considered an employee's primary computer and are not part of the replacement cycle used for departmental capital budgeting.

Non-standard systems. The campus computer standards are the Lenovo, HP, and Apple lines of computers. The purchase of any non-standard computer is an exception and requires approval from the Academic Chair and Dean for academic departments or Departmental Director or their designated representatives for administrative departments.

Printers. The standard printer for departments is a high-end laser printer. All printers should be connected to the campus network; every printer should provide printing services for several computers. Non-networked printers will not be installed without approval from the Academic Dean (academic departments), Departmental Director or their designated representatives (administrative departments).

Projectors. The purchase of a display device (projector, flat panel display, etc.) must be initiated by the Division Chair and approved by the Academic Dean (academic departments), Departmental Director or their designated representatives (administrative departments).

Externally funded purchases. Unless otherwise specified in the applicable grant or contract agreement, all computer technology purchased with external funds is the property of Independence Community College, and as such is subject to the ICC computer software, network, support, and disposal policies, as well as ICC software agreements.

Warranty. A three-year warranty is required on all computer and projector purchases.

Software. Departments must contact the Department of Information Technology before purchasing any software. ICC has purchased site licenses and/or volume licenses for many software packages. It is possible that the software you need is already available at no additional cost.

All software license agreements/contracts must be reviewed by the Department of Information Technology and the Business Office and signed by the Chief Financial Officer.

Appendix C

Computer Software Policy

1. Independence Community College licenses the use of computer software from a variety of outside companies. Independence Community College does not own this software or its related documentation and unless authorized by the software developer, the institution does not usually have the right to reproduce it except for backup purposes, and fair use.

2. With regard to Client/Server and network applications employees shall use the software only in accordance with the license agreements.

3. Employees shall not download or upload illegal software over the Internet.

4. Employees learning of any misuse of software or related documentation within the College shall notify the Department of Information Technology.

5. According to applicable copyright law, persons involved in the illegal reproduction of software can be subject to civil damages and criminal penalties including fines and imprisonment. Independence Community College does not condone the illegal duplication of software. Employees who make, acquire, or use illegal copies of computer software shall be disciplined as appropriate following the guidelines set forth in the Network Acceptable Use Policy and / or the appropriate employee Handbook. In addition, violations of the Computer Software policy could result in a suspension of the individual/s computer account and access to Independence Community College resources.

6. Any doubts concerning whether any employee may copy or use a given software program should be raised with the Department of Information Technology before proceeding.

I am fully aware of the software use policies of Independence Community College and agree to uphold those policies.

_____   _____
Signature   Date

Appendix D

Technology Life Cycle

Device	Life Cycle in Years
Network Infrastructure	
Network Equipment	7-10
Facility wiring	10-20
Data Center	
Servers / Storage	5-8
UPS / Batteries	3
Devices	
Desktops	6
Zero / Thin Clients	8
Laptops	3-5
Tablets	3-5
Printers	5
Digital Classrooms	10
Projectors	5
Wi-Fi	Upon Review

Current End User Device Age

End User Devices

	< 1 Year	1 - 2 Years	3 - 4 Year	4 - 5 Years	> 5 Years	Out of service
Academic Building	99	1	26	0	28	10
Administration Building	8	2	10	1	3	2
Fine Arts Building	0	0	5	2	9	4
Cessna Building	19	1	3	0	1	4
Field House	0	0	9	0	5	19
Student Union	0	0	8	0	2	9
Football	0	5	0	0	1	15
West	3	0	10	0	5	26
Upward Bound						
Maintenance						
Totals	129	9	71	3	54	89

Decommissioned = 117
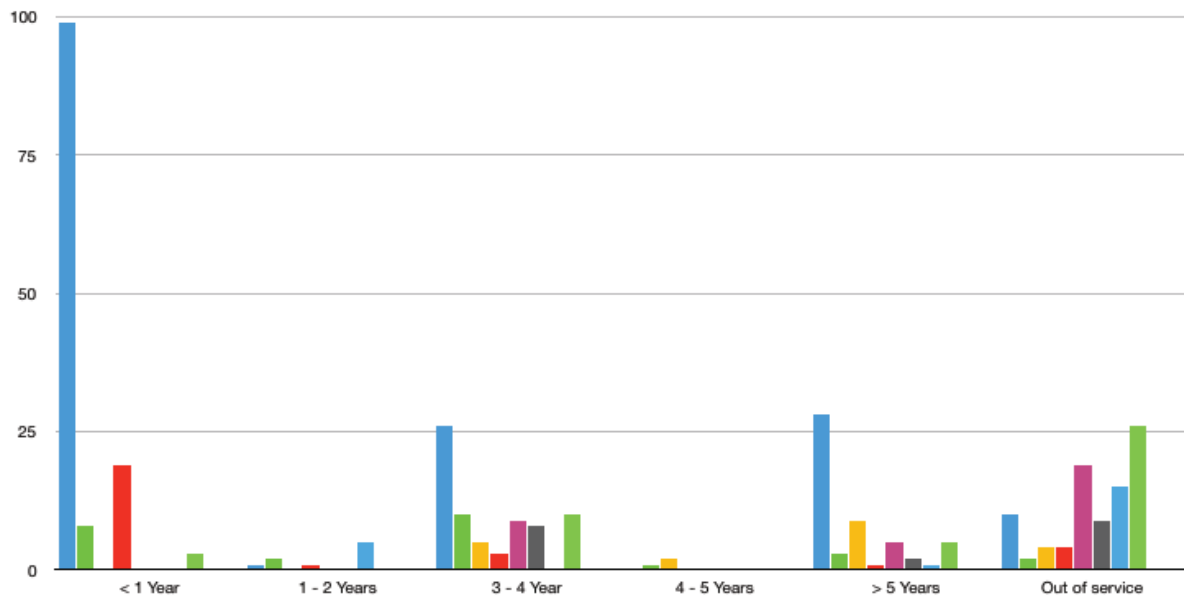
Current Infrastructure Age

Infrastructure

	< 1 Year	1 - 2 Years	2 - 3 Year	3 - 4 Years	5 Years	> 5 Years
Network Equipment	0	0	20	0	0	0
Data Center	0		1	0	0	0
Facility Wiring	0	0	5		0	2
Fiber Optics	0	0	6	0	0	6
Wifi	0	0	30	40	0	0
UPS	8	0	0	0	1	0
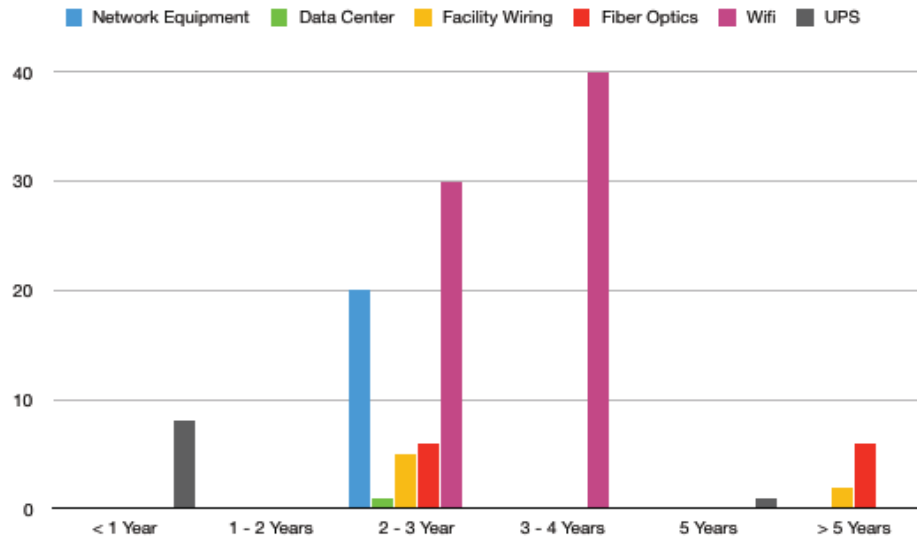
Appendix E

Technology Replacement Plan

Overview

The Technology Replacement Plan sets general replacement guidelines for computer technology within college IT standards. In 2018 the Technology Committee was revamped removing it as a standing committee and implementing an Advisory committee. The Advisory Committee will assess needs, guide priorities, and set goals in relation to the area of Technology. The intent of this plan is to guide college technology replacement.

The plan includes recommendations regarding projections for replacement and associated costs considerations to be used in planning. These projections and replacement guidelines are applicable to equipment for faculty, staff, management; equipment for instructional computer labs; and equipment needed to support the college administrative, teaching, and learning, and supporting applications.

The Technology Replacement Plan guidelines will:
- Identify redeployment strategies for older equipment.
- Identify computers and related equipment that have become obsolete and should be liquidated.
- Inform replacement costs projection in accordance with Total Cost of Ownership for budgeting and planning purposes.

Criteria to Replace Computers and Related Equipment

The criteria to replace college computers and related equipment will be reviewed annually by the Technology Advisory Committee and modified as needed. Current criteria are as follows.

Age and model of computer/workstations or peripheral equipment within the following replacement:
- Desktop hardware and peripherals 6 years
- Network hardware 7-10 years
- Wiring and physical infrastructure 10-20 years
- Wireless coverage standards reviewed by Information Technology Staff

The college Technology Advisory Committee will evaluate requests outside of these criteria based on documented and submitted needs within the program review process and available funds.

Technology Advisory Committee will collaborate with college and IT personnel to assist with prioritization of need.

- Review administrative departments on 2-year cycle to see if delay replacement can be delayed by 1-2 years.
- Review use of re-deployed computers for computer labs and faculty.
- Look at possibility of adding memory to existing lab computers.
- Review multi-media equipment replacement needs to determine if replacement can be delayed a year or more.

Redeployment

Computers and related equipment for personnel, existing instructional computer labs, and classrooms will be redeployed, with documented rationale, if the equipment has not been aged out as defined by the Technology Life Cycle. If the equipment has been aged out the equipment will **NOT** be redeployed.

Liquidation

Computers and related equipment that have been replaced by new or redeployed units will be liquidated in accordance with the Kansas Board of Reagents policy:

- Equipment has aged out of the Technology Life Cycle
- Equipment has a history of disrepair
- Equipment is older than three years and cannot economically be repaired, or for which parts cannot be acquired
- Equipment has no other college identified use

Costs and Projections for Planning

While every attempt was made to verify information, equipment changes occur continuously within each office/department. This working document may be subject to change. The college will utilize asset tracking to determine and verify age and need prior to equipment being purchased.

Total Cost of Ownership

In the Information Technology industry, Gartner, Inc. is regarded as a leading information technology research and advisory company. The Gartner Group (now Gartner, Inc.) originally introduced the concept of **Total Cost of Ownership (TCO)** in 1987.

Gartner defines total cost of ownership (TCO) for Information Technology (IT), as "…a comprehensive assessment of information technology (IT) or other costs across enterprise boundaries over time…including hardware and software acquisition, management and support, communications, end-user expenses and the opportunity cost of downtime, training and other productivity losses[2]". Total cost of ownership analysis attempts to define both the obvious costs for acquisition and ongoing support and the so-called "hidden" costs of ownership across the full ownership life or life cycle of the acquisition. The Gartner model uses the IT Key Metrics Data (ITKMD) to calculate a price for infrastructure and operations with recommended IT staffing levels.

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[2] Gartner IT Glossary 2016. http://www.gartner.com/it-glossary/total-cost-of-ownership-tco/

In defining ownership life[3], The Technology Advisory Committee takes into account the following areas influencing the useful lifespan of IT systems:

- **Economic life**. - The number of years for which the IT system provides more value to than it costs to own, operate, and maintain. When ongoing costs exceed returns, the IT system is considered to be beyond its economic life.
- **Service life**. - The number of years the IT system is actually in service providing appropriate functionality and performance for the requirements.
- **Depreciation life -** The number of years over which financial systems charge depreciation expense.

While the economic life may be a factor in which upgrades should be planned, the service life is more often the defining factor. The Technology Advisory Committee uses the service life for determination of equipment life. In IT, discrete systems and technologies present different life cycles to analyze. For example, tablets and laptops exceed their service life in functionality and usefulness faster than Enterprise server systems. If a computer can no longer do the job needed by the staff, faculty or student, then upgrades are mandatory because the device has reached the end of its useful service life.

Costs of ownership span beyond the procurement process itself. In the life cycle graphic shown, an IT system or technology requires different types of IT effort, as it moves from a new deployment to an aging service. The various phases include Planning, Procurement, Deployment, Management, Support and Disposition. Each phase requires IT to provide specific IT knowledge and task execution. The ongoing cost of ownership incorporates all expenses for staff, equipment and support to execute those tasks.

The Department of Information Technology have made operational and architecture choices to minimize the ongoing costs of ownership and better position the available staff to support the technology expansion and increased sophistication.

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[3] Total Cost of Ownership TCO Explained, Business Encyclopedia, ISBN 978-1-929500-10-9. https://www.business-case-analysis.com/total-cost-of-ownership.html

Due to decreased staff and increased TCO the Department of Information Technology would like to investigate the plausibility of a Bring Your Own Device, BYOD, initiative. The BYOD program would work in conjunction with the Technology Replacement Plan. Faculty and Staff at Independence Community College would receive a possible stipend to purchase their own technology, while the replacement plan would be garnered to apply only to infrastructure needs and Labs.
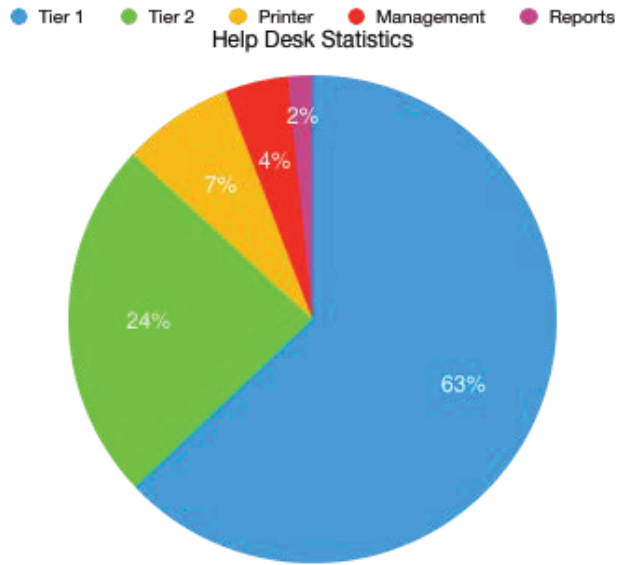
Appendix F

Helpdesk Statistics

Help Desk Statistics

Tier 1	2,166
Tier 2	822
Printer	254
Management	143
Reports	57
Total	**3,442**

Tier 1 Statistics

Automation	614
Training	117
Restructuring	0
Managed Services	1435
Remaining Tier 1	0

Automation - Repetitive Tasks
Innovation - New Technologies
Training - Power Campus Issues / GP Issues
Restructuring - AS400/Power Campus
Managed Services - Ellucian Helpdesk / IPS
Remaining Tier 1 - Work by ICC IT Staff
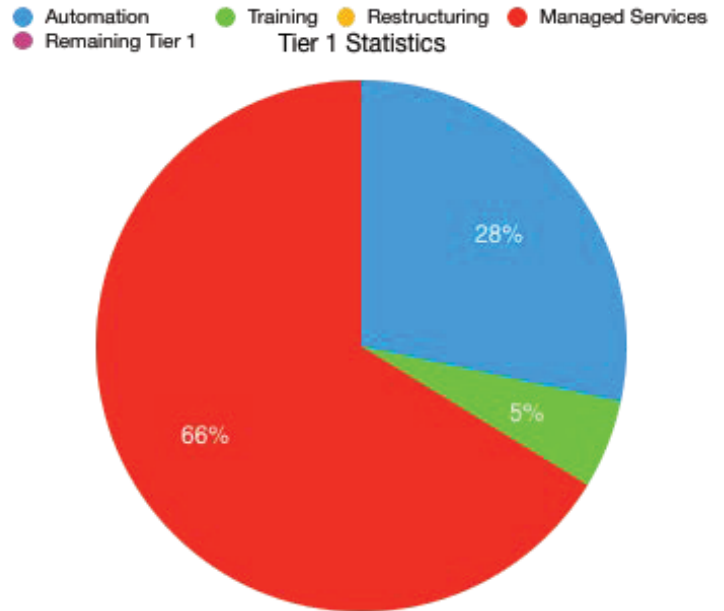
Tier 2 Statistics

Automation	76
Training	97
Restructuring	0
Managed Services	0
Remaining Tier 2	649

Automation - Repetitive Tasks
Innovation - New Technologies
Training - Power Campus Issues / GP Issues
Restructuring - AS400/Power Campus
Managed Services - Ellucian Helpdesk / IPS
Remaining Tier 2 - Work by ICC IT Staff

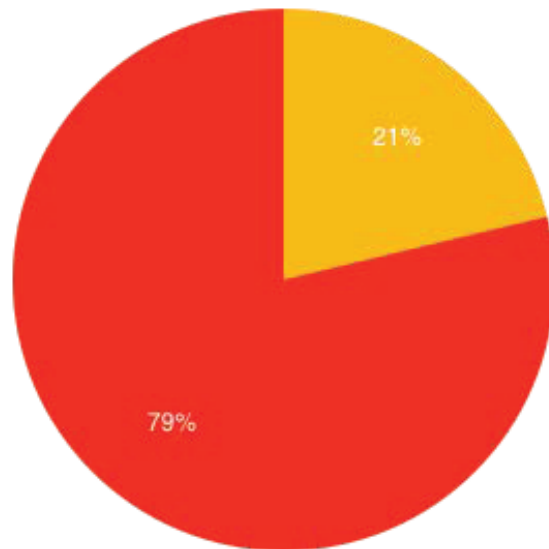● Automation ● Training ● Restructuring ● Managed Services
● Remaining Tier 2
Tier 2 Statistics
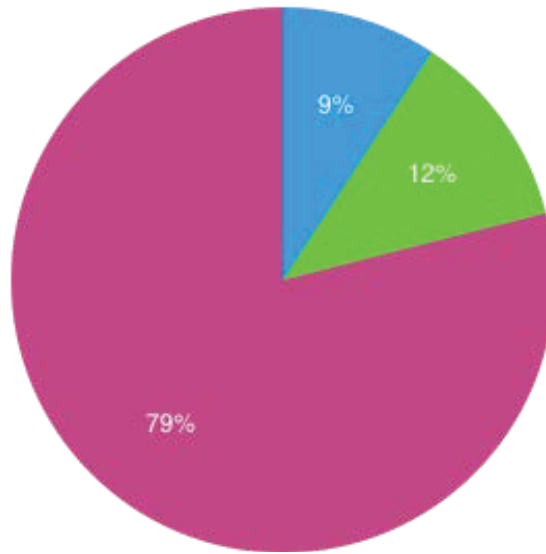
Printing Statistics

Automation	0
Training	0
Restructuring	54
Managed Services	200
Remaining Printing	0

Automation - Repetitive Tasks
Innovation - New Technologies
Training - Power Campus Issues / GP Issues
Restructuring - AS400/Power Campus
Managed Services - Ellucian Helpdesk / IPS
Remaining Printing - Work by ICC IT Staff

● Automation ● Training ● Restructuring ● Managed Services
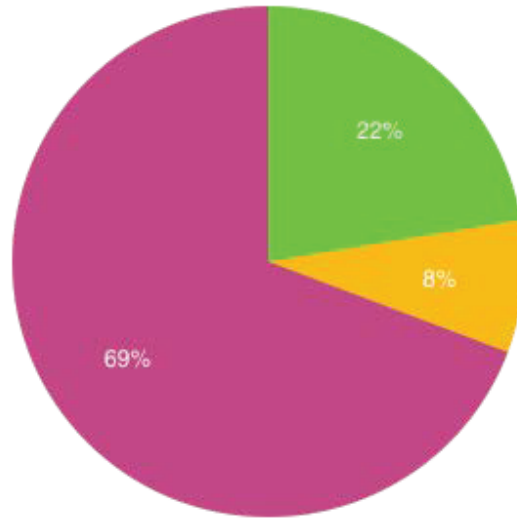● Remaining Printing
Printing Statistics

Management Statistics

Automation / Innovation	0
Training	32
Restructuring	12
Managed Services	0
Remaining Management	99

Automation - Repetitive Tasks
Innovation - New Technologies
Training - Power Campus Issues / GP Issues
Restructuring - AS400/Power Campus
Managed Services - Ellucian Helpdesk / IPS
Remaining Management - Work by ICC IT Staff

Automation / Innovation   Training   Restructuring   Managed Services
Remaining Reporting

Reporting Statistics

Automation / Innovation	38
Training	9
Restructuring	0
Managed Services	0
Remaining Reporting	10

Automation - Repetitive Tasks
Innovation - New Technologies
Training - Power Campus Issues / GP Issues
Restructuring - AS400/Power Campus
Managed Services - Ellucian Helpdesk / IPS
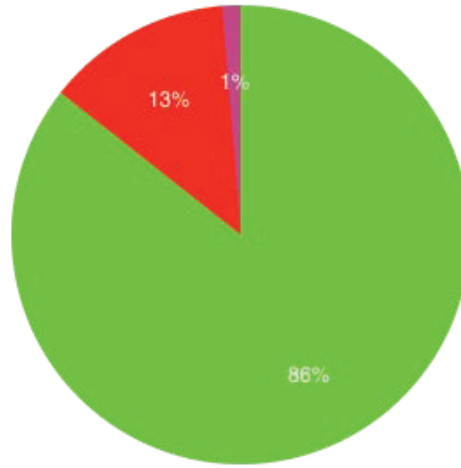Remaining Reporting - Work by ICC IT Staff
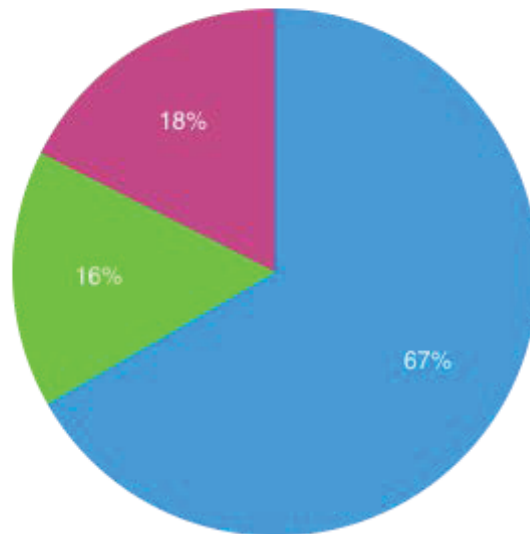
Remaining Workload

|	
Remaining Tier 1	0
Remaining Tier 2	649
Remaining Printer	0
Remaining Management	99
Remaining Reports	10
Total	758

● Remaining Tier 1 ● Remaining Tier 2 ● Remaining Printer ● Remaining Management ● Remaining Reports

Post Automation / Training / Restructuring

86%
13%
1%

Appendix G

Budget vs Expenditures

Budget

Fiscal Year	Total Budget	Replacements
2015 -2016	$195,082.00	$65,000.00
2016-2017	$245,097.00	$1,115,080.00
2017-2018	$278,870.00	$45,000.00
2018-2019	$100,000.00	$20,000.00
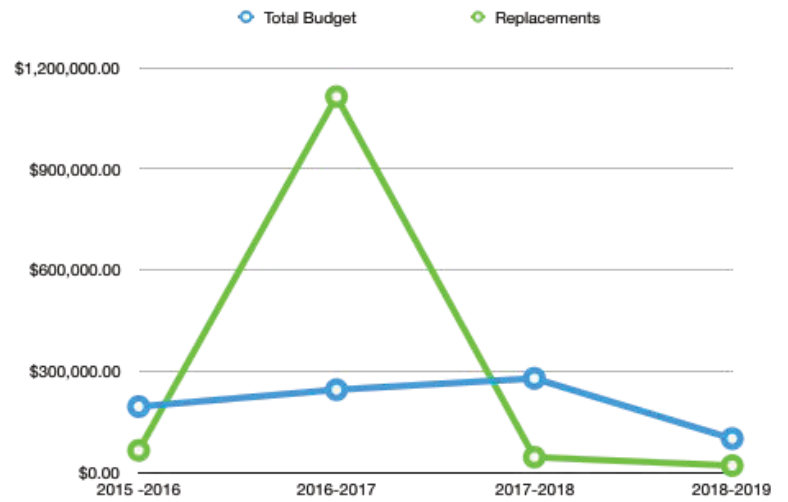
Appendix H
TECHNOLOGY STEERING COMMITTEE BY-LAWS

Mission
To research and recommend flexible, integrated, systems and solutions that enable processes for: learning, student success, College communications and administrative functions.

Responsibilities
1. Study and evaluate the current and future areas of technology.
   a. Align technology goals in relation to higher education, business and emerging trends.

2. Anticipate and evaluate advances in instructional technology in order to stay current in providing educational resources.
3. Priorities defined by the steering committee will be provided to Cabinet by March 1.
   a. Priorities will be identified by strategic data driven processes based upon business office analytics, academic program review, pre-defined user group studies and areas of need as defined by:
      i. The strategic plan as defined by the board and adopted by the institution.
      ii. Existing status of instructional and business technology.
      iii. Existing status of student access and need of technology.

4. Prepare continuous summaries of the effectiveness of the committee's work as it relates to the strategic planning of the institution.

5. Review, modify and ratify the Technology Plan as it relates to the 1,3 and 5 year planning cycles.

Membership
Committee members will be chosen by the Director of Information technology to include institution faculty and staff, local staff or faculty from local educational institutions, employees of local businesses and Information Technology staff from other Higher Education institutions. The Director of Information Technology is a permanent member and facilitator of the committee. The Technology Steering Committee will be open for any to attend. Service for this Committee will be one academic year.

Meeting Frequency
The Technology Steering Committee will meet monthly. The steering committee may decide to meet more frequently if core responsibilities need to be met.

Communications
Minutes will be taken each meeting and will be distributed to all faculty, staff and administrators at the earliest possible date.