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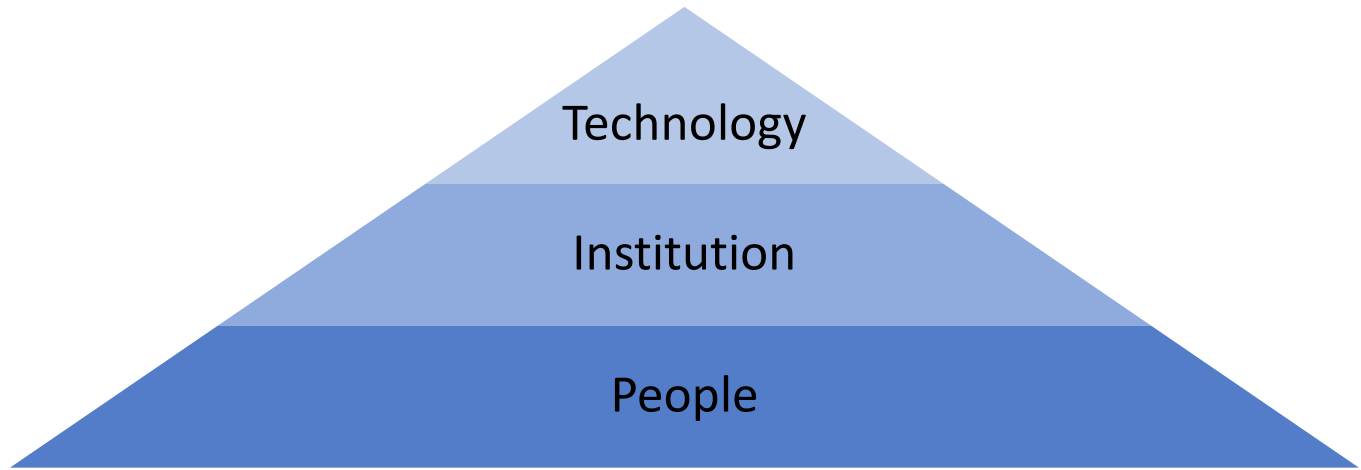
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PURPOSE

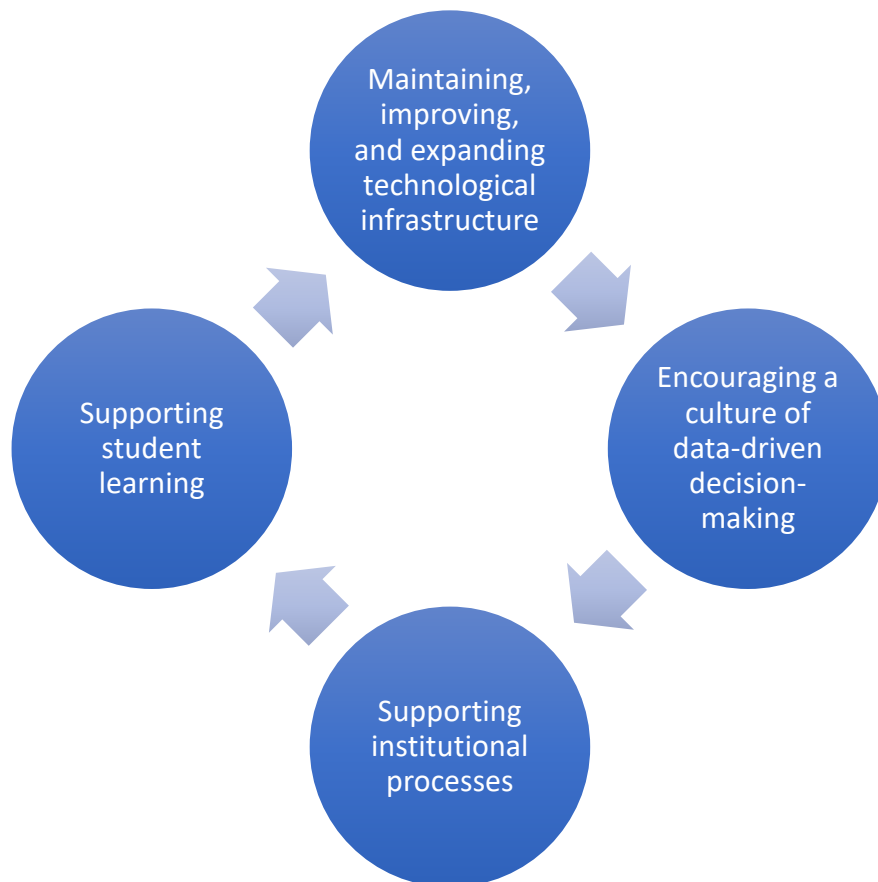
The purpose of the Technology Master Plan is to define technology guidelines that will help the College of the Redwoods prepare for the future by providing a framework for strategic implementation of technology in support of instructional and operational needs. This plan contains visions and recommendations for technological enrichment within the College of the Redwoods district for the next five years and can work as a roadmap for all major technology initiatives undertaken by the district to enhance instructional delivery, student learning, and support systems to enable the district to perform its mission and achieve strategic objectives.

FOCUS OF TECHNOLOGY MASTER PLAN

The plan places focus first on **people** (students, faculty, staff, administration), secondly on the **institution** (all district locations, processes and culture) and thirdly on the **technology** (hardware and software infrastructure).



The plan strives to examine the current status of technology at the College of the Redwoods focusing on four major elements that are crucial for the success of the plan. These elements include:



TECHNOLOGY MASTER PLAN GOALS

1. Supporting student learning
2. Maintaining, improving, and expanding technological infrastructure
3. Encouraging a culture of data-driven decision-making
4. Supporting institutional processes

Technology evolves quickly. The needs of College of the Redwoods may also change. Therefore, the Technology Master Plan will be updated annually by the Technology Planning Committee to address changing technologies and the changing needs of our students, faculty, staff and administration.

GOAL 1: SUPPORT STUDENT LEARNING

Student learning is the focal point of this institution and should be the primary motivation behind decision making. Appropriate use of technology and the procedures guiding its implementation should advance and nurture an effective learning environment. These objectives will help College of the Redwoods achieve this goal:

- 1.1. Promote the availability of modern technology resources in classrooms and computer labs. (EMP: [12.a-c](#), [1.d](#), [1.b](#))
 - 1.1.1. Encourage pedagogical innovation.
 - 1.1.2. Provide cost-savings opportunities to our students.
- 1.2. Continue to develop and evolve high quality Distance Education opportunities for students in our district making higher education more accessible to them. (EMP: [1.b](#), [2.a.b](#), [12.a-c](#))
 - 1.2.1. Assess and improve Telepresence.
 - 1.2.2. Explore alternatives and enhancements to traditional telepresence modalities such as Zoom.
- 1.3. Create a secure environment for use by faculty, staff, and students. (EMP: [12.a-c](#), [1 b, d](#))
 - 1.3.1. Implement Single Sign-on.
- 1.4. Explore the district's use of student funded wireless network and our responsibility to fund use by district employees (EMP: [1.b](#), [6.c](#), [12.a.b](#), [13.a](#))
- 1.5. Help improve student retention by reviewing student alert programs, follow-up services and analytics. (EMP: [3.b](#))

GOAL 2: SUPPORT INSTITUTIONAL PROCESSES

The functioning of College of the Redwoods relies upon a dependable and robust network that allows the convenient transfer of information and ideas. For this institution to efficiently and effectively meet the needs of its students, technology must work in concert with institutional processes. These objectives will help College of the Redwoods achieve this goal:

- 2.1. Regularly gather and analyze data from students, faculty and staff regarding their satisfaction with, use of and need for technology (EMP: [1.b-d](#), [12.a.b](#), [13.a,c,d](#))
- 2.2. Continue to update and digitalize all forms and processes. (EMP: [6.b,c](#), [13.a,c,d](#))
- 2.3. Continue to implement and improve Zoom for meetings. (EMP: [1.b-d](#), [2.a.b](#), [6.b,c](#), [12.a.b](#))
- 2.4. Continue to integrate eLumen into all processes for curriculum, assessment, and student services. (EMP: [6.b,c](#), [12.a.b](#), [13.a,c,d](#))
- 2.5. Develop and implement an institution wide policy for loaning laptops and tablets to students and ensure proper security protocols are integrated into it. (EMP: [1.b-d](#), [6.b,c](#), [13.a,c,d](#))
- 2.6. Develop a policy requiring mandatory consultation with the Technology Planning Committee prior to budget related requests. (EMP: [1.b-d](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))
- 2.7. Continue to provide a platform for committee transparency and information sharing. (EMP: [6.b,c](#), [13.a,c,d](#))

State of the art technology requires state of the art people to set up and maintain it, as well as training others how to make the best use of it. Investing in ongoing professional development of existing staff and hiring additional tech-specialized staff as needed is a key component to successfully rolling out large scale technology upgrades.

GOAL 3: ENCOURAGE A CULTURE OF DATA DRIVEN DECISION MAKING

Efficiency relies on making a decision that addresses the question at hand. Collecting and analyzing data designed specifically to answer a question or better understand what question(s) needs to be asked or addressed will allow College of the Redwoods to more efficiently meet the needs of our students and support our institutional process. These objectives will help College of the Redwoods achieve:

- 3.1. In collaboration with all district stakeholders, develop and implement policies, procedures and protocols for collecting, analyzing, and sharing data. (EMP: [1.b-d](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))

- 3.2. Establish a culture of planning, data collection and analysis. Work with Institutional Research and IT to develop data relevant to technology planning. (EMP: [6.b,c](#), [13.a,c,d](#))
- 3.3. Offer professional development to administration, staff, and faculty to cultivate a culture of data driven decision making. (EMP: [1.b-d](#), [6.b,c](#), [13.a,c,d](#))

GOAL 4: MAINTAIN, IMPROVE, AND EXPAND TECHNOLOGY INFRASTRUCTURE

Technology infrastructure is the foundation of all information processes at College of the Redwoods. Without a properly funded and maintained infrastructure, the goals of this Technology Master Plan are not achievable. Serving our students in this age of quickly evolving technologies is at the heart of this institution’s existence. Therefore, if priority is placed on funding and maintaining infrastructure, all processes and goals of College of the Redwoods will become better realized. These objectives will help College of the Redwoods achieve:

- 4.1. Develop and implement a Total Cost of Ownership model for budgeting future and existing technology requests. (EMP: [1.b-d](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))
- 4.2. Develop and document security procedures and standards for data, access, and physical infrastructure. (EMP: [1.b-d](#), [2.a.b](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))
 - 4.2.1. Coordinate efforts across all major district data centers to review and implement existing Federal and State technology regulations.
 - 4.2.2. Review, update and expand on administrative regulations 3720 – 3729 as needed to implement Federal and State, technology and security, laws and mandates.
 - 4.2.3. Review and implement policy changes based on the Gramm-Leach-Bliley Act where needed to enhance cyber security for public, internal and restricted student data.
 - 4.2.4. Develop policies regarding student personal information on devices outside of College of the Redwood’s secure network.
- 4.3. Develop a disaster recovery plan to ensure instructional and business continuity in the event of data and/or services loss due to a catastrophic event. (EMP: [1.b-d](#), [2.a.b](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))
- 4.4. Develop a classroom technology plan to meet different instructional approaches and support the design of technologically enhanced classrooms (EMP: [1.b-d](#), [2.a.b](#), [6.b,c](#), [12.a.b](#), [13.a,c,d](#))

CROSSWALK OF TECHNOLOGY MASTER PLAN AND EDUCATION MASTER PLAN

This Technology Master Plan is closely aligned with the Education Master Plan and therefore strives to support the goals and strategic initiatives from 2017-2022. Technology is woven closely into many of these goals and strategic initiatives and therefore an integral part to their success. Alignment of the goals between the Education Master Plan and the Technology Master Plan is critical for ongoing success as we move forward.

The following pages contain a crosswalk of these goals and indicates specific goals and strategies from the Education Master Plan that this Technology Master Plan addresses.

Education Master Plan (EMP):

1. Employ state-of-the-art technology, equipment, and facilities throughout the district to support learning and institutional performance. (EMP 12 a-c)					
2. Provide accessible, affordable, high-quality education. (EMP 1 b-d)					
3. Effectively use all learning modalities to provide students the knowledge and skills they need to succeed. (EMP 2 a,b)					
4. Employ clear and transparent processes for core operations and decision-making. (EMP 13 a,c,d)					
5. Engage in excellent communication, coordination and collaboration across campuses. (EMP 6 b,c)					
Technology Master Plan (TMP):					
1. Supporting student learning					
✓	✓				1-1 Promote the availability of modern technology resources in classrooms and computer labs
✓	✓	✓			1-2 Continue to develop and evolve high quality Distance Education opportunities for students in our district making higher education more accessible to them.
✓	✓				1-3 Create a secure environment for use by faculty, staff, and students.
	✓		✓	✓	1-4 Explore the district's use of student funded wireless network and our responsibility to fund use by district employees .
✓	✓		✓	✓	1-5 Help improve student retention by reviewing student alert programs, follow-up services and analytics.
2. Supporting institutional processes					
✓	✓		✓		2-1 Regularly gather and analyze data from students, faculty and staff regarding their satisfaction with, use of and need for technology
			✓	✓	2-2 Continue to update and digitalize all forms and processes.
✓	✓	✓		✓	2-3 Continue to implement and improve Zoom for meetings.
✓			✓	✓	2-4 Continue to integrate eLumen into all processes for curriculum, assessment, and student services.
	✓		✓	✓	2-5 Develop and implement an institution wide policy for loaning laptops and tablets to students and ensure proper security protocols are integrated into it.
✓	✓		✓	✓	2-6 Develop a policy requiring mandatory consultation with the Technology Planning Committee prior to budget related requests.
			✓	✓	2-7 Continue to provide a platform for committee transparency and information sharing.

Education Master Plan (EMP):

1. Employ state-of-the-art technology, equipment, and facilities throughout the district to support learning and institutional performance. (EMP 12 a-c)					
2. Provide accessible, affordable, high-quality education. (EMP 1 b-d)					
3. Effectively use all learning modalities to provide students the knowledge and skills they need to succeed. (EMP 2 a,b)					
4. Employ clear and transparent processes for core operations and decision-making. (EMP 13 a,c,d)					
5. Engage in excellent communication, coordination and collaboration across campuses. (EMP 6 b,c)					
Technology Master Plan (TMP):					
3. Encouraging a culture of data-driven decision-making					
✓	✓		✓	✓	3-1 In collaboration with all district stakeholders, develop and implement policies, procedures and protocols for collecting, analyzing, and sharing data.
			✓	✓	3-2 Establish a culture of planning, data collection and analysis. Work with Institutional Research and IT to develop data relevant to technology planning.
	✓		✓	✓	3-3 Offer professional development to administration, staff, and faculty to cultivate a culture of data driven decision making.
4. Maintaining, improving, and expanding technological infrastructure					
✓	✓		✓	✓	4-1 Develop and implement a Total Cost of Ownership model for budgeting future and existing technology requests
✓	✓	✓	✓	✓	4-2 Develop and document security procedures and standards for data, access, and physical infrastructure.
✓	✓	✓	✓	✓	4-3 Develop a disaster recovery plan to ensure instructional and business continuity in the event of data and/or services loss due to a catastrophic event.
✓	✓	✓	✓	✓	4-4 Develop a classroom technology plan to meet different instructional approaches and support the design of technologically enhanced classrooms

EDUCATION MASTER PLAN ITEMS

This is a list of the Education Master Plan items that the Technology Planning Committee found to be relevant to its mission and were used to help direct the creation of Technology Master Plan.

- 1) Provide accessible, affordable, high-quality education.
 - b) Provide cost-saving opportunities for students
 - c) Increase professional development opportunities for faculty and staff
 - d) Promote pedagogical innovation
- 2) Effectively use all learning modalities to provide students the knowledge and skills they need to succeed.
 - a) Enhance quality and expand access to distance learning education
 - b) Expand support services for online students
- 3) Deliver strong individual support for students.
 - b) Grow the retention alert program and follow-up services
- 6) Engage in excellent communication, coordination, and collaboration across campuses.
 - b) Develop clear and consistent avenues of communication
 - c) Improve the effectiveness of tele-conferencing
- 12) Employ state-of-the-art technology, equipment, and facilities throughout the District to support learning and institutional performance.
 - a) Improve technology throughout the District
 - b) Carry out technology infrastructure upgrades at each location
 - c) Carry out facility infrastructure upgrades at each location
- 13) Employ clear and transparent processes for core operations and decision-making.
 - a) Assess all College processes
 - c) Review and revise website content regularly
 - d) Develop a plan for routinely scheduled analysis of program relevance & health

REGULAR ANNUAL REVIEW

The 2019-2022 Technology Master Plan will require annual adjustments to the changing landscape at College of the Redwoods. To ensure that it is meeting the needs of the students, faculty, administration and staff it should not sit on a shelf or inside a hard drive; rather, it should be a living document that informs and supports technology initiatives at the college. The plan should be reviewed annually with input from the following areas:

- Technology Planning Committee input
- Student Survey
- Faculty/Staff Survey
- Program Review processes
- State, Federal and AP Standards that apply directly to Technology
- New Technology ARs that are in development
 - AR3720 - Acceptable Use
 - AR3721- Change Control
 - AR3722 -Disaster Recovery
 - AR3723 - Network Security
 - AR3724 - Secure Operations
 - AR3725 - Incident Response
 - AR3726 - Data Classification
 - AR3727 - Physical Security
 - AR3728 - Logging and Monitoring
 - AR3729 - Remote Access

CURRENTLY UNDER REVIEW

Issues, items or challenges currently under review by the Technology Planning Committee include but are not limited to:

- Secure campus Wi-Fi and improve Wi-Fi infrastructure (coverage, bandwidth, security) supports instruction, opening new avenues for innovations in pedagogy
- Review and Improve the Telepresence System
- Professional development training on new and emerging technology for faculty and staff. Apple certification training for Tech Support staff. Technology support staff trained in new technologies and data reporting tools
- Identify any technology accessibility regulations or issues and create a plan to bring the district into compliance
- Utilize existing surveys or create an annual student and faculty Tech survey
- Regularly review and revision of website content
- Enhance assessment and MIS data collection capacity for all departments and institutional resources
- Develop a hardware replacement schedule
- Develop a plan to maintain software version currency
- Continue Colleague upgrades
- Expand support services for online students
- Work with HR to ensure that all new employees are educated about technology use and data security process and procedures specifically addressed in AR 3720-AR3729
- In the future, the TPC should seriously consider detailing a section of how the budget will play into this plan. The college should be aware that for this technology master plan to have some teeth it will need resources both financial and human for these goals to be most fully supported.