

Coast Community College District Strategic Technology Plan 2019-2022

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I. Overview, Mission, and Vision

Overview

The Strategic Technology Plan for the Coast Community College District is intended to provide an overall framework for the strategic implementation of technology within the District. The purpose of the plan is to align the application of technology to the District's Mission and Vision, and Strategic Goals and Objectives to support the Colleges' Missions and Visions. It provides a roadmap for major technology initiatives undertaken by the District for the next three years. The plan is reviewed and evaluated annually, accomplishments are reported, and objectives are tracked to assess progress.

This plan is divided into six sections. The first section includes the vision and mission of the District and its Colleges: Coastline College, Golden West College and Orange Coast College. The second section outlines the key technology issues and trends that have informed the guiding principles and objectives of the plan. The third section provides a brief overview of the process used to develop the plan. The fourth section outlines the plan's strategic guiding principles. The fifth section provides the objectives of the Strategic Technology Plan and indicates the relationship with the guiding principles. The sixth section provides a glossary of key technical terms that appear in the plan.

District Vision Statement

Transforming lives and enriching communities through excellence in education, innovation, and opportunities.

District Mission Statement

Coast Community College District, comprised of Coastline College, Golden West College, and Orange Coast College, serves the diverse educational needs of its communities, both locally and globally. We promote academic excellence and student success, empowering students to achieve their educational goals by providing accessible, high quality, equitable, innovative, and flexible programs and services leading to associate degrees, transfer, workforce development, certificates, basic skills readiness for college, and careers. We seek to transform students into lifelong learners and engaged community members.

Coastline College Vision Statement

Creating opportunities for student success.

Coastline College Mission Statement

Coastline College guides diverse populations of students toward the attainment of associate degrees and certificates leading to career advancement, personal empowerment, and transfer. By meeting students where they are, Coastline provides innovative instruction and services designed to achieve equitable outcomes.

Golden West College Vision Statement

Golden West College welcomes you. Be inspired. Be empowered. Be transformed.

Golden West College Mission Statement

Golden West College provides an intellectually and culturally stimulating learning environment for its diverse student population. The College provides enriching and innovative programs that help students: transfer to four-year institutions, earn associate degrees, complete certificates in career and technical education, advance their careers, and demonstrate college readiness. The College is committed to continuous assessment and improvement of student learning and institutional effectiveness.

Orange Coast College Vision Statement

To be the standard of excellence in transforming lives through education

Orange Coast College Mission Statement

Orange Coast College serves the educational needs of its diverse local and global community. The college empowers students to achieve their educational goals by providing high quality and innovative programs and services leading to academic degrees, college transfer, certificates in career and technical education, basic skills, and workforce development to enable lifelong learning. The college promotes student learning and development by fostering a respectful, supportive, participatory, and equitable campus climate of student engagement and academic inquiry.

II. Key Technology Issues and Trends¹

Educause has taken the Top 10 IT issues and clustered them into three themes:

- I. Empowered Students
- II. Trusted Data
- III. 21st Century Educational and Business Strategies

For the purposes of the Coast Colleges Strategic Technology Plan, the priorities of the institutions have been placed into these three clusters:

Empowered Students

Student Success: Information Services to serve as a trusted partner within Coast Colleges, to drive and achieve student success initiatives, and assist in strategically leveraging technology.

Student-Centered Institution: Understanding and advancing technology's role in optimizing the student experience - from applicants to alumni.

¹ Adapted from Educause January 28, 2019 issue

Trusted Data

Information Security Strategy: Developing a holistic, agile approach to information security to create a secure network, develop security standards and protocols, and reduce institutional exposure to information security threats.

Privacy: Safeguarding institutional constituents' privacy rights and maintaining accountability for protecting all types of restricted data.

Digital Integrations: Ensuring system interoperability, scalability, and extensibility, as well as data integrity, security, standards, and governance, across multiple applications and platforms.

Data Enabled Institution: Taking a service-based approach to data and analytics to reskill, retool, and reshape a culture to be adept at data enabled decision-making.

Data Management and Governance: Implementing effective institutional data governance practices and organizational structures.

21st Century Educational and Business Strategies

Sustainable Funding: Developing funding models that can maintain quality and accommodate both new needs and the growing use of IT services in an era of increasing budget constraints.

Integrative CIO: Repositioning or reinforcing the role of IT Leadership as an integral strategic partner of institutional leadership in supporting institutional missions.

Higher Education Affordability: Aligning IT organizations' priorities and resources with institutional priorities and resources to achieve a sustainable future.

III. Planning Process

The District Consultation Council (DCC) Technology Subcommittee is the district-wide participatory governance group with responsibility for district-wide technology planning and evaluation. The DCC Technology Subcommittee advises, informs and makes specific recommendations to the District Consultation Council regarding major technology initiatives and projects throughout the district and future directions. For recommendations that have budgetary implications, the DCC Technology Subcommittee's recommendations go to the Chancellor's Cabinet first.

The DCC Technology Subcommittee has primary responsibility for developing and providing oversight for implementing an overall district-wide information technology strategic plan, informed and coordinated with the college plans (bi-directional), and maintaining an ongoing implementation effort aimed at achieving the goals of the plan.

The DCC Technology Subcommittee is co-chaired by the Vice Chancellor Educational Services and Technology and one of the faculty co-chairs of the college technology committees.

Starting in November 2018, the DCC Technology Subcommittee began discussions about the development of the 2019-2022 District Strategic Technology Plan. Iterative drafts of the plan incorporated feedback from consultation with representatives of all constituencies through discussions with the Academic Senates, Associated Student Governments, Classified Senates, Collective Bargaining Units, Association of Confidential Staff, College Technology Committees, and College Councils or College Planning and Budgeting Committees.

As a subcommittee of the District Consultation Council, which is the main district-wide participatory governance committee with broad representation from all constituent groups, the DCC Technology Subcommittee advanced the draft plan to the District Consultation Council for review, discussion and approval. The District Consultation Council approved the plan on **TBD**.

IV. Strategic Guiding Principles

Guiding Principle 1. Prioritize and maximize the utilization of Coast Colleges' technologies that advance student success, teaching, learning, and student support, and are customer focused and driven by the needs of and consultation with students, faculty, and staff.

Guiding Principle 2. Continually evaluate the risk-based security strategy to ensure ongoing effective detection, response, and prevention of security threats and challenges. Implement and maintain structures and systems that provide for security of data, information, and information technology assets.

Guiding Principle 3. Increase cloud-based computing in order to continue to improve teaching, learning, productivity and/or functionality. Standardize and improve technologies where feasible, cost-effective, scalable, and desirable. When available and appropriate, adopt systems made available through state initiatives.

Guiding Principle 4. Maximize optimization for mobile computing.

Guiding Principle 5. Consider total-cost-of-ownership when making investments in new technological resources.

Guiding Principle 6. Maintain throughout Coast Colleges, appropriate industry standards and best practices for all technology related services and resources.

Guiding Principle 7. Provide a continuous improvement model to establish and implement sustainable training for faculty, staff, and students in existing as well as new and emerging technologies.

Guiding Principle 8. Pursue managed services options for information technology where feasible, cost-effective, and desirable.

V. Strategic Objectives and Relationship to Strategic Guiding Principles

Objectives	Applicable Guiding Principles
Objective 1. Increase direct support for students in the learning environment through the creation of a student information technology help desk.	1
Objective 2. Increase direct support for faculty through the use of various technologies in the teaching and learning environment.	1
Objective 3. Make consistent use of data-driven analytics district-wide to enhance student success.	1
Objective 4. Establish comprehensive data governance and standards.	1, 2
Objective 5. Establish a clear and effective process and method for prioritizing, funding, and managing IT projects.	1, 5, 6
Objective 6. Provide dedicated support to ensure accessibility of district created content.	1, 6
Objective 7. Review all currently owned technology resources to evaluate their effectiveness, return on investment, utilization, and compliance, as applicable.	3, 5
Objective 8. Develop a strategy and model for supporting Bring Your Own Device for faculty, staff, and students taking into consideration wireless resources, security, and student equity.	4
Objective 9. Ensure a sustainable replacement cycle of computing equipment (e.g., computers, printers, projectors) and infrastructure as informed by the Technology Condition Index.	5, 6
Objective 10. Optimize use of tracking/inventory control systems to optimize software licensing, replacement, utilization, and supporting infrastructure to ensure productivity, accountability, efficiency, and cost effectiveness.	5, 6
Objective 11. Create and implement sustainable training models for various constituencies – faculty, students, staff (functional users), and IT staff - to ensure timely and ongoing training of and/or communication of updates to faculty, staff, and students in current and new technologies,	7

Objectives	Applicable Guiding Principles
where applicable, in conjunction with dedicated associated funding.	
Objective 12. Fully implement Banner 9 and Banner 9 Self Service to maximize support, and enhance and modernize the user experience. Increase awareness of Banner and Banner Self Service functionality to maximize utilization district-wide.	1, 3, 4, 6
Objective 13. Identify, select, and implement a Customer Relationship Management platform to be used district-wide that integrates with Banner, and other required enterprise systems.	1, 3, 6
Objective 14. Implement application streaming, so students can benefit from an equitable and unified experience.	1, 3, 6
Objective 15. Develop and implement a digital backpack solution for students across the district.	1, 6
Objective 16. Coordinate and integrate technologies and platforms district-wide to support student success initiatives and provide for seamless and consistent student experience across the district.	1, 3, 4, 5, 6

VI. Glossary of Terms

Cloud computing

Cloud computing, also known as on-demand computing, is a kind of internet-based computing, where shared resources and information are provided to computers and other devices on-demand. It is a model for enabling ubiquitous, on-demand access to a shared pool of configurable computing resources. Cloud computing and storage solutions provide users and enterprises with various capabilities to store and process their data in third-party data centers. It relies on sharing of resources to achieve coherence and economies of scale, similar to a utility (like the electricity grid) over a network. At the foundation of cloud computing is the broader concept of converged infrastructure and shared services. Cloud computing services can be private, public or hybrid. Private cloud services are delivered from a business' data center to internal users. This model offers versatility and convenience, while preserving management, control and security. Internal customers may or may not be billed for services through IT chargeback. In the public cloud model, a third-party provider delivers the cloud service over the Internet. Public cloud services are sold on-demand, typically by the minute or the hour. Customers only pay for the CPU cycles, storage or bandwidth they consume. Leading public cloud providers include Amazon Web Services (AWS), Microsoft Azure, IBM/SoftLayer and Google Compute Engine.

Disaster recovery and business continuity

Disaster recovery (DR) involves a set of policies, procedures, systems and infrastructure to enable the recovery or continuation of vital technology infrastructure and systems following a natural or human-induced disaster. Business continuity encompasses a defined set of planning, preparatory and related activities which are intended to ensure that an organization's critical business functions will either continue to operate despite serious incidents or disasters that might otherwise have interrupted them, or will be recovered to an operational state within a reasonably short period. As such, business continuity includes three key elements and they are

1. Resilience: critical business functions and the supporting infrastructure are designed and engineered in such a way that they are materially unaffected by most disruptions, for example through the use of redundancy and spare capacity;
2. Recovery: arrangements are made to recover or restore critical and less critical business functions that fail for some reason.
3. Contingency: the organization establishes a generalized capability and readiness to cope effectively with whatever major incidents and disasters occur, including those that were not, and perhaps could not have been, foreseen. Contingency preparations constitute a last-resort response if resilience and recovery arrangements should prove inadequate in practice.

Enterprise resource planning (ERP)

Enterprise resource planning (ERP) is a category of business-management software—typically a suite of integrated applications—that an organization can use to collect, store, manage and interpret data from many business activities.

ERP provides an integrated view of core business processes, often in real-time, using common databases maintained by a database management system. ERP systems track business resources—persons, courses, classes, programs, positions, vendors, internal departments, budgets, etc.—and the status of business commitments: enrollments, orders, purchase orders, payroll, etc. The applications that make up the system share data across various departments (admissions and records, financial aid, instruction, accounting, etc.) that provide the data. ERP facilitates information flow between all business functions and manages connections to outside stakeholders. Enterprise system software is a multibillion-dollar industry that produces components supporting a variety of business functions. IT investments have become the largest category of capital expenditure in United States-based businesses over the past decade. Though early ERP systems focused on large enterprises, smaller enterprises increasingly use ERP systems.

The ERP system integrates varied organizational systems and facilitates error-free transactions and production, thereby enhancing the organization's efficiency. However, developing an ERP system differs from traditional system development. ERP systems run on a variety of computer hardware and network configurations, typically using a database as an information repository.

The ERP used by the district is the Ellucian Banner suite.

Managed Services

Managed Services is the proactive management of an IT asset, object or system by a third party typically known as a Managed Services Provider (MSP), on behalf of a customer. The operative distinction that sets apart a MSP is the proactive delivery of their service. Managed services are the practice of day-to-day management responsibilities and functions as a method for improving operations and reducing expenses.

Although the terminology varies, typically the person or organization that owns or has direct oversight of the organization or system being managed is referred to as the offer or, client, or customer; and the person or organization providing the managed service is the service provider or Managed Services Provider (MSP).

Generally, the client remains fully accountable for the overall management and control of the organization or system - including the functionality and performance of the managed service.

Personally identifiable information (PII)

Personally identifiable information (PII) is any data that could potentially identify a specific individual. Any information that can be used to distinguish one person from another and can be used for de-anonymizing anonymous data can be considered PII.

Single sign-on (SSO)

Single sign-on (SSO) is a session and user authentication service that permits a user to use one set of login credentials (e.g., name and password) to access multiple applications. The service authenticates the end user for all the applications the user has been given rights to and eliminates further prompts when the user switches applications during the same session. On the back end, SSO is helpful for logging user activities as well as monitoring user accounts.

State of the market

As opposed to "state of the art" which implies the very best available, "state of the market" represents the broadly available and expected, currently utilized level of technology for hardware and software. The term "state of the art" refers to the highest level of general development, as of a device, technique, or scientific field achieved at a particular time. It also refers to the level of development (as of a device, procedure, process, technique, or science) reached at any particular time as a result of the common methodologies employed.

The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law

applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.

Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.

Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):

- School officials with legitimate educational interest;
- Other schools to which a student is transferring;
- Specified officials for audit or evaluation purposes;
- Appropriate parties in connection with financial aid to a student;
- Organizations conducting certain studies for or on behalf of the school;
- Accrediting organizations;
- To comply with a judicial order or lawfully issued subpoena;
- Appropriate officials in cases of health and safety emergencies; and
- State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

Total cost of ownership

Total cost of ownership (TCO) is an estimation of the expenses associated with purchasing, deploying, using and retiring a product or piece of equipment. TCO includes both direct and indirect, short- and long-term costs of a product or system over the life cycle of the product or system. The purchase price of hardware and software is typically less than 50% of the total direct costs.

Virtual desktop infrastructure

Virtual desktop infrastructure (VDI) is the practice of hosting a desktop operating system within a virtual machine (VM) running on a centralized server. VDI is a variation on the client/server computing model, sometimes referred to as server-based computing. The term was coined by VMware Inc.

Voice over Internet Protocol (VoIP)

Voice over Internet Protocol (VoIP) is a technology that allows making voice calls using a broadband Internet connection instead of a regular (or analog) phone line. Some VoIP services may only allow one to call other people using the same service, but others may allow one to call anyone who has a telephone number - including local, long distance, mobile, and international numbers. Also, while some VoIP services only work over a computer or a special VoIP phone, other services allow one to use a traditional phone connected to a VoIP adapter.

Wide Area Network (WAN)

A wide area network (WAN) is a telecommunications network or computer network that extends over a large geographical distance. Wide area networks are often established with leased telecommunication circuits. Business, education and government entities use wide area networks to relay data among staff, students, clients, buyers, and suppliers from various geographical locations. In essence, this mode of telecommunication allows a business to effectively carry out its daily function regardless of location. The Internet may be considered a WAN. Related terms for other types of networks are personal area networks (PANs), local area networks (LANs), campus area networks (CANs), or metropolitan area networks (MANs) which are usually limited to a room, building, campus or specific metropolitan area respectively.