CSU Technology Steering Committee Report for Fall 2020 Planning

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INTRODUCTION

As the COVID-19 Pandemic disrupts higher education in an unprecedented fashion, digital technology will play a crucial role in addressing the challenges we face in adapting to this threat. It is unlikely that colleges or universities will return to a pre-pandemic structure anytime soon. The very nature of higher education with its residential populations, dense teaching and learning environments and shrinking budgets make adaptation to an uncertain future even more difficult. This uncertainty led to the plan for two possible scenarios for Fall 2020, HyFlex (multi-modal courses that combine online and face-to-face) and/or fully online. There is also the possibility that moving from HyFlex to fully online may be required at any point during the Fall semester and, as the in case during the Spring semester, it may be abrupt. We know that our on-campus presence will be faced with health and safety issues such as PPE requirements, cleaning protocols, social distancing, etc. which may require additional technology solutions. The following major recommendations were developed from common themes that emerged after our recent pivot from on-ground to remote education and from looking forward to the future needs of our university communities.

Major recommendations include:

1. Establish policies/procedures to ensure technology (hardware, internet) that is secure, protects privacy, accessible and creates a consistent experience for students, faculty and staff.
2. Train faculty to deliver high-quality online education, train staff on the digital tools to more effectively work remotely and train students to use the required technology and support services to succeed in a HyFlex/online environment.
3. Provide applications to create virtual experiences to replace physically dependent content (lab sciences, art, music, etc.) and high end computing facilities.
4. Provide robust virtual support services to students (Library Services, Tutoring, Advisement, etc.).
5. Implement an aggressive digital transformation process to replace paper processes.
6. Increase multi-channel communication and engage students through on-ground and virtual programs.
7. Upgrade/implement classrooms and event spaces to include technology for remote delivery where needed.

What does a successful reopening in the fall look like?

1. **Address student, staff and faculty needs for on-ground and on-line education and services.**

   Possibilities:
   - Mandate that students acquire technology required to succeed in a HyFlex or online environment. Developing processes such as allocating student fees towards the purchase of laptops will bridge the digital divide. Students who already own computers may "opt out."
   - Develop policies for students to acquire internet or cellular hotspots through similar solutions outlined in the previous recommendation.
   - Develop policies for faculty and staff technology and internet expectations. Transition faculty and staff to laptops or WiFi enabled desktops, provide loaner equipment to adjuncts and part time employees when needed.
   - Continue to provide training and instructional design to full and part time faculty for online pedagogy and use of teaching technologies (Kaltura, WebEx, Microsoft 365, Blackboard, etc.).
   - Develop policies to require supported standard technology and applications be used for instructional and support services. This will reduce the need for students to navigate multiple platforms and provide a more uniform experience.

- Determine what virtual programs can substitute for content normally covered in physically based courses/labs (sciences, nursing, theatre, art, dance, music).
- Provide/enhance on-ground and online support services for students (IT Help Desk, Library Services, Tutoring, Counseling, Advisement, Proctoring, etc.) with virtual experiences.

Challenges:
- Access to on-ground specialty labs and software for high end computing.
- Health safety protocols leave the universities challenged to provide alternatives to hands-on based classes and research.
- Limited virtualization and resources to support.
- Potential supply chain issues with hardware procurement.
- Need to develop a campus based deployment center for hardware pickup and break/fix.
- Alternatives for high risk groups need to be developed.
- AccessAbility/Disability requirements need to be incorporated in an online scenario.
- Need for additional security risk assessment resources to assess and address new or expanded risks from pandemic-related data collection, use and sharing of personal information.
- Lack of Chief Privacy Officer and privacy function throughout CSCU institutions that clearly describes our privacy practices and gives adequate notice regarding those practices.

Changes to work expectations for employees:
- Disruption/challenges to course delivery.
- Limited capacity teaching spaces will require reworking courses.
- Need greater HR records management, reporting systems, employee contact/contract systems under HIPAA regulations and downstream changes this could create within networks/audit/security practices.
- High risk employees in critical positions not returning to campus

2. **Address technology needs of administrative employees for telework**

Possibilities:
- Transform paper based business practices to digital processes eliminating the need for printing & scanning. Use digital signatures.

- Train staff how to more effectively operate in a HyFlex and online environment (collaboration tools such as O365).
- Retrain staff who have physically based positions to assist in an online environment.
- Assist Enrollment Services divisions to recruit and admit students using virtual platforms/CRM for online engagement such as Open Houses, Virtual Tours, Orientation, etc.

Challenges:
- Transitioning paper processes to digital process will take significant staff time to convert.

Changes to work expectations for employees:
- Shift to digital only processes will require staff to adapt and to become proficient.

3. **Assess readiness of classroom facilities for on-ground education**

   Possibilities:
   - Implement lecture capture/live conferencing technology in classrooms and labs for the ability to operate in a HyFlex scenario or staggered occupancy approach.

   Challenges:
   - Need to determine appropriate cleaning protocols for technology. This is next to impossible given the high usage/turn around time and the difficult nature to adequately and safely clean electronic equipment in lab and classroom settings. Mandating student-owned computers may alleviate the need for physical computer labs/classrooms.
   - Challenge to amplify instructors speaking through plexiglass barriers/wearing masks and challenges to support ADA accommodations relative to students who read lips and may need alternate format.
   - Faculty need to be trained or need teaching assistants to assist with this technology.
   - Technical arrangements for faculty members who should not be on campus or who prefer not to be.

4. **Steps to reopen non-classroom spaces**

   Possibilities:
   - Continue to provide student life experiences in either scenario (Virtual Career Fair, entertainment, etc.).

- Technology Infrastructure needs to be maintained/supported on-ground.
- Leverage card access/technology to monitor/manage capacity in all spaces.

Challenges:
- Operating student life events with limited capacity and health safety requirements will impact the logistics and effectiveness of these events.
- Will need to add technology to event spaces that are currently not equipped.
- Disinfecting technology in event spaces in between events.

5. **Contingency plans for future outbreaks**

Possibilities:
- Move to fully online education/support.
- Develop plans for continuity of operations in the event of faculty, staff, or student illness.
- Implement measures to create more stringent distancing.
- Quarantine ill students, faculty, staff.
- Review and update protocols for managing epidemics on campuses, including manual contact tracing. Clarify whether the current State ContaCT tracing program will supplement manual contact tracing with a digital app(s).
- Leverage 3rd party shipping for distribution/collection.

Challenges:
- Enable all employees with mobile technology by design (i.e. buy Wi-Fi enabled laptops).
- Identify an alternate pandemic role for employees who are time/space specific.
- Establish near-off campus depot/distribution point for rapid exit and deployment of technology to campus.
- Establish near-off campus location for critical business functions which cannot be completed off-campus check-cutting, scanning, technology break/fix.
- Any compulsory digital contact tracing program would likely be problematic because CSCU is a State entity, and such a mandate would expose the State and CSCU to potential civil liberties and Constitutional challenges. Most likely digital contact tracing program would need to be optional, be based on informed and voluntary consent, and require guidance and management by the State authorities.
- Whether a digital contact tracing program ought to be compulsory or optional is an essential question, but it is one of many legal and practical considerations surrounding the State's response to the pandemic. Arguably, the more important consideration is ensuring maximization of public uptake.

- If the Governor/public health authorities determine to use some form data-aggregating contact tracing (compulsory or optional) within the ContaCT program, such a program must have safeguards to protect against abuse, because it is important in itself and because a failure to take such measures will reduce public uptake, public trust in our institutions and undermine the public health goals that justify such an effort in the first place.
- Any such digital contact-tracing program would need to have safeguards in place to protect against attacks by bad actors; informed voluntary participation so that individuals who opt-out are not denied access to CSCU spaces; and assurances that the technology will anonymize and prohibit re-identification of the collected data to protect individual privacy. To maximize citizen uptake and participation, additional contact tracing app program safeguards should include:

  - **Sunset provision:** the program must have a firm end date, and may allow the possibility of reenactment if the program is helpful and the health threat continues. Otherwise no such program should exist. Six months is a reasonable timeframe.
  - **Opt out option.** Smartphone users could be enrolled in contact tracing applications by default and given the ability to opt out. To maximize uptake, individuals choosing to opt-out should immediately be shown figures on how many people in their respective neighborhood or city are enrolled in the contact tracing program and the difference that collective participation can make in combating the pandemic.
  - **Data deletion:** it must require that the data collected by the contact tracing app is expunged from the host device or any other storage device in an automatic and verifiable way after some specific period of time, say three weeks to a month, or only for so long as the data is plausibly useful toward supporting COVID-19 contact tracing.
  - **Access limits:** prohibit data re-identification of aggregate data, any other use or exploitation of data by government or commercial entities, and limit access and use only for public health purposes related to COVID-19 contact tracing.
  - **Real time auditing and reporting:** the use of data-collection app must include sufficient oversight, like the Inspector General, to be charged with the responsibility for auditing the functioning of the digital contract tracing program on an ongoing basis (monthly reports), with a requirement of detailed contemporaneous reporting including the CT State Legislature/Governor, CDC, and most notably our CSCU communities and the public.

6. **Other**
    - Communication will be critical. This includes multi-channel (email, video, digital signage, web, text, apps, etc.) messaging, to students, faculty, staff, parents, alumni.
    - Increase Social Media/Marketing to maintain connection with current students and recruit prospective students.