

Creating a Learning Space Strategic Plan (Pre seminar workshop)

A framework of six dimensions for creating learning space strategic plan

1. Alignment of space with academics strategic plan
 - Promotion of active learning
 - Assessment of space performance
 - Prioritizing space assignment to support pedagogy
 - Accelerating transformation through design
 - Coordination of virtual & physical environments
2. Pedagogy development
 - Incentives for course redesign
 - Communities of practice
 - Instructional development programs
 - Planning for hybrid futures
3. Support ecosystem
 - Coordination & partnership initiatives
 - Academic technology best practices
 - Online/hybrid program support
 - Hubs for learning support services
4. Learner focus
 - NSSE (US national survey of student engagement)– plus space related measures
 - Space assessment linked to outcomes
 - Student engagement in space design
 - Growing UX (user experience) experiences
 - Effectiveness research initiatives
 - Student survey of learning spaces
5. Planning process
 - Governance structure for learning space
 - Inclusive participatory process
 - Culture of evidence based learning
 - Learning activity & affordance driven
 - Integrated formal & informal settings
6. Risk tolerance/innovation
 - Investment in prototyping & pilots
 - Experimentation with emerging technologies
 - Integration of doing/making experiential learning
 - Innovation labs & initiatives
 - Transdisciplinary initiatives

| | Learning space strategic plan | Master plan | Space guidelines |
|---|---|--|---|
| Purpose | How to align space strategy with institutional learning and teaching strategy | How to implement across campus, to create an inspirational learning environment | How to design, execute & operate learning spaces |
| Goal | Clarify institutional intent, ensure pedagogy drivers space planning | Develop capital plan, coordinate building projects | Consistency across classroom inventory |
| Guidelines | Apply to space typologies and mix, and technologies that support learning | Apply to campus organizations & relationships, functional mix in identified projects, support hubs | Apply to specific space designs, inform how they can be used, incl. technologies |
| Promotes | Pedagogy enhancement, improved learning experiences & outcomes | Comprehensive planning, design of campus environment | Appropriate design of furnishings, display & affordances |
| Resiliency / Opportunities for innovation | Encourages exploration through stakeholder participation, evidence based planning, investment in prototyping / pilots | Seek efficient utilization of space across campus, inventory to meet growth, flexibility to respond to new demands | Consistency for efficiency and effectiveness in components & systems to support learning & teaching |
| Terminology | Strategic plan, aspirational brief, framework plan | Master plan | Guidelines, design requirements |

- Transform the types and mix of learning settings to align with your academic strategy
- Accelerate adopting of active learning through design
- Evaluate how well your learning spaces support active learning
- Improve governance structures for both formal and informal learning spaces
- Coordinate planning for physical and virtual learning experiences
- Wish how your faculty wish to teach in the future
- Engage instructors in all phases of planning of learning spaces
- “Sandbox” spaces for instructors to try new techniques in a supportive setting
- Prioritize assignment of teaching spaces to match instructors’ methods
- Incentives to accelerate and encourage course redesign
- Plan instructional development for a future of hybrid and distributed learning
 - More experiential learning outside of the classroom
 - Interactions becoming a mix of F2F and virtual
 - Potential to reduce on-campus space demand
 - Need for space booking systems responsive to demand
- Research the learners experience, in both physical and virtual spaces
- Link space assessments to data about enrollment and student success
- Address the need for informal learning spaces of many types across campus
- Enable students to search and find places and services that best support their learning tasks
- Engage students throughout the planning and design process

- Critical success factors for learning spaces
 - Quiet environment: space where students can focus and concentrate studying individually
 - Ability to gather as group: space where get together as a group to be able to share materials and collaborate effectively brainstorm
 - Accessibility: extended hours and easy access to information on availability of space resources e.g. digital dashboard of usage status
 - Flexible and multi-purpose: spaces that serve more than one function e.g. café areas equipped with power outlets and sharing monitors
 - Environmental & ergonomic comfort: good natural light thru-out the spaces and with variety of furniture to suite different needs
 - Integrated services: resource (both human and physical)
 - Food and drink: coffee and study goes together
- Focus on learner
 - Research the learner's experience, in both physical and virtual spaces
 - Link space assessment to data about engagement and student success
 - Inclusivity, environments welcoming of diversity: Integration with campus context, planning and design process, support and operations, environmental quality, layout and furnishing, technology and tools
 - Health and wellbeing in design of learning environments: air, water, nourishment, light, movement, thermal comfort, sound, materials, mind, community
 - Sustainability and resilience: living building challenge
 - Leverage technology and systems integration: new space analytics method, sensor system, and network data to inform space planning: density challenges and rightsizing
 - An iterative cycle of piloting assessment
- Support ecosystem
 - Foster a coordinated ecosystem of support services, partnership and incentive programs
 - Energize communities of practice
 - Seek and support academics technology best practices
 - Create hubs for integrated learning support services accessible to instructors and learners
 - Enrich hybrid/online program support
- Challenge old assumptions! Approach challenges with analytics and fresh perspectives
- Experiment with spaces that can foster transdisciplinary initiatives
- Enable both physical and digital making across many types of learning spaces
- Create learning innovative labs and learn from prototyping and pilots
- Anticipate the impact of immersive technologies on the future of learning, teaching, space and support services
- A four step process
 - Project charter
 - Learning & teaching strategy
 - Space and technology strategy
 - Implementation strategy

TODO AND THINK

- **What messages our learning spaces tell of us ?**
- Campus wide view of learning spaces
 1. Type of classroom
 2. Size, Seats, Technology
- Standard classrooms types
- Implementation
 1. To effect meaningful innovation and change, there must be recognition that there is a problem to be solved and that “do nothing” is not a feasible option
 2. We are not building for today – we are building for tomorrow. And our successors will inherit our decision
 3. Innovation is like a marathon. There will be some sprinting ahead, and others lagging behind. And some will never make up.
- **Principles for designing teaching and learning spaces**
 1. Academic challenge. Learning spaces should allow students to actively engage with content and include a range of technologies that support multiple modes of teaching and learning
 2. Learning with peers should provide features that permit students to work both individually and in collaboration with one another
 3. Experiences with faculty should facilitate communications and integration between students and faculty
 4. Campus environment should be consistent with the university’s culture and priorities as reflected in the campus master plan, follow university design standards and be designed with future flexibility in mind
 5. High impact practices exist within a larger campus context ;there should be an ease of transition between spaces so as to better support high-impact practices inside and outside the classroom

Leveraging data-driven decision making to drive student success, retention and accessibility initiatives

Scaling accessibility

- Supporting diverse learner needs and abilities through proactive inclusion
- Accessibility context
 1. Policies and guidelines (all systems and policies ensure inclusiveness and accessibility)
 2. Vision, values, strategic plan
 3. Culture (awareness, capacity, insight, education)
 - Accessibility policy
 - Captioned media guidelines
 - Disability support resources
 - ADA advisory council
 - eLearning and emerging technologies
 - Lecture capture ja LMS
- Machine learning algorithms to scale learner ...

- Alternative formats on-demand (downloads increasing dramatically)
- Digital content in the LMS is full of accessibility barriers
- Files fixed through instructor feedback 18,6% in USA
- GVSU: using data to inform strategy
 1. messaging strategy
 2. demonstrating progress and challenges to academic leadership
- Nevada promise scholarship
 1. Challenges
 - Centralized applications
 - Shared instance of the SIS
 - Self-reported data (duplicates, falsely reported data keys, segmented data)
 - Diverse reporting needs (institutional leadership)
 2. Solutions
 - Institution wide collaboration
 - Data warehousing
 - Mass communication
 - Centralized data interface
 - Back end data protection
 - Trust
 3. Positive results
 - Year over year improvement (16% increase when accounting for application pool size)
 - Legislation changes based on reapplication data (fewer service hours required, SAP and attempted credits)
 4. Additional takeaways
 - Iterating development
 - Flexible schema
 - Keep the raw data
 - Audit collaboratively
 - Record anecdotal data

The Educause 2020 top 10 IT Issues

1. **Information Security Strategy:** Developing a risk-based security strategy that effectively detects, responds to, and prevents security threats and challenges
2. **Privacy:** Safeguarding institutional constituents' privacy rights and maintaining accountability for protecting all types of restricted data
3. **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
4. **Digital Integrations:** Ensuring system interoperability, scalability, and extensibility, as well as data integrity, security, standards, and governance, across multiple applications and platforms
5. **Student Retention and Completion:** Developing the capabilities and systems to incorporate artificial intelligence into student services to provide personalized, timely support

6. **Student-Centric Higher Education:** Creating a student-services ecosystem to support the entire student life cycle, from prospecting to enrollment, learning, job placement, alumni engagement, and continuing education
7. **Improved Enrollment:** Using technology, data, and analytics to develop an inclusive and financially sustainable enrollment strategy to serve more and new learners by personalizing recruitment, enrollment, and learning experiences
8. **Higher Education Affordability:** Aligning IT organizations, priorities, and resources with institutional priorities and resources to achieve a sustainable future
9. **Administrative Simplification:** Applying user-centered design, process improvement, and system reengineering to reduce redundant or unnecessary efforts and improve end-user experiences
10. **The Integrative CIO:** Repositioning or reinforcing the role of IT leadership as an integral strategic partner of institutional leadership in supporting institutional missions

Setting the Stage: Higher Education's Grand Challenges

- Student success
 1. Persistence, retention, completion
 2. Engagement
 3. Outcomes
- Financial health
 - Enrollment
 - Costs
 - Funding
 - Natural disasters
- Reputation and relevance
 - Affordability
 - Political climate
 - Teaching
 - Academic programs
 - Research
- External competition
 - Alternative credentials
 - Employer-based learning
 - Talent
 - Global HE

Driving effective Data governance: Leadership, data models, collaboration and culture

- Modeling microscope
 1. Every element, every source and every target
 2. Business process
 3. Reporting needs
 4. Analytics potential
 5. Conceptual data models and the "six degrees of bacon" (what links to what)

- 6. Institutional perspective on data
- 7. How and why the data matter
- Conceptual data models
 - 1. Process – workshops to find out them
 - 2. Enlightenment: understanding why we are doing this
 - 3. Institutional perspective
 - 4. Documenting the microscope view
 - Include: questions, changes, dates
 - Use: checkboxes, hierarchy, links contracts
 - 5. Information access
 - 6. Content management: what data is available and what data not yet
- Data modelling and data management

Adopting inclusive teaching strategies through video-based case studies

Professional development model

1. Justify need (why is this relevant to you)
 1. Why? Goals of an inclusive classroom
 - Create a learning environment where everyone feels safe to go to express ideas and questions
 - Multiply, diverse questions/opinions are considered
 - Student experience of marginalization are minimized
 2. Why definitions: diversity (identity, primary, secondary, organizational, cultural), inclusivity
 3. Inclusion contributes as much as diversity
 4. Stereotype threat research
2. Present video case study (what are we going to do?)
3. Facilitate debrief discussion (what did you see?)
4. Facilitate brainstorming discussion (what would you do?)
 - Group formation
 - Diversity of examples
 - How to set up examples
 - Teaching assistant training – appropriate relationships
5. Development best practices
 - Research what already exist
 - Make your own
 - Hire talent
 - Keep video case studies short

DNA of in-house communications team

- Your personal and team – what's essential and what is acceptable
- Diversity on skills, services and leveraging partnerships
- Using students to communications is challenging because they usually are part time employees

- What makes up your teams DNA
 - Inventory of technical /soft skills
 - Communications ecosystem (tools, channels, platforms)
 - Team vision, mission and charter
 - Communications framework or roadmap
 - Future state
- Forecasting your maturity model
 - Future state
 - Will you expand/shrink the team?
 - How will you build the case of investing in a team?
 - What will influence team make-up?
 - Current state
 - Assess/evaluate skill set inventory
 - Current set services / operations
 - Process of re-evaluation / review
 - Current recruitment and retention practices
- Benchmark against your competitors and know your comparators

Digital redlining

Electronic monitoring and classification on people. F.ex. system conclude your race.

Managing and reducing IT risk

Partnership for successful MFA and data-loss prevention implementations

- Duo for MFA authentication key factors
 - Change management
 - Campus wide committee
 - Forced or voluntary approach
 - Personal cell phone usage
- Spirit for digital loss prevention – key factors
 - Early identification of anticipated resistance
 - Academic senate buy-in
 - Clear communication and expectations
 - Storytelling
 - Institutional exposure to understand
 - Endpoint resource requirements
 - Heightened privacy concerns – grant stipulation
- MFA and DLP (Data Loss Prevention) – Concurrent deployments
 - Why was it advantageous to deploy MF and DLP concurrently?
 - What was the measure of success?
 - How is life 6 months later?
 - What's next?
 - Get rid of password expiration!

- Enroll more services into Duo
- Scan cloud and network storage

Most password rules are useless (IU=Indianan University) at least in preventing password reuse

- 71000 user ID:s
- Passphrases
- Minimum password length 15 characters in IU !!!
- Complexity requirements increase. They have no affect! -> no more
- Password policy matches to other universities
- After MFA almost zero compromises
- <http://go.iu.edu/2bNm>

Getting 10 000 university community members to use 2FA

- Being clear about the problem
- Started with the desired goal in mind
 - Enhance the University IT-security posture by getting over 100 000 faculty, staff, student, employees and sponsored affiliates to undertake and/accept a common action. 8 month timeline from concept to completion
- Worked toward achieving the goal
 - Understanding each group at a macro and micro level: doing the audience analysis
 - Identifying opportunities for improving user experiences: empaneling an advisory group
 - Engaging with university users and stakeholders: identifying perceived barriers and addressing them
 - Changing IT operations and materials where needed: being flexible and adaptable to reduce impediments
 - Communicating the benefits: Sending targeted emails and increasing the pressure, while making it easy
- Gave users what they really needed and wanted
 - 1-click enrollment app
 - 7-day remember me
 - Authentication options: phone push, phone call, codes, tokens, UbiKeys
- Got in front of those who hadn't completed yet: Interrupt Screen in login window
- Created friendly competition among leaders: dashboard

Campus computing survey

Top 10 campus priorities

1. IT Data security (83%)
2. Hiring/retaining IT talent (77%)
3. Leveraging IT to support student success (73%)
4. Providing adequate user support (71%)
5. Data analysis / learning and managerial analytics (60%)
6. Digital accessibility / ADA compliance (57%)
7. Supporting online / distance education

8. Assisting faculty with the instructional integration of IT (52%)
9. IT business continuity / IT disaster recovery (50%)
10. Professional development for IT personnel (49%)

Results:

<https://static1.squarespace.com/static/5757372f8a65e295305044dc/t/5da60e02c69e0005bf93690e/1571163656824/Campus+Computing+-+2019+Report.pdf>

Scaling XR (virtual reality) teaching and learning: development, delivery and assessment strategies

- Different types of XR
 - Augmented reality (AR)
 - Mixed reality (MR)
 - Virtual reality (VR)
- Examples of use of XR in teaching
 - Nano-material engineering: to see things which are too small to see
 - Astronomy
 - Photogrammetry: see objects from different angles
 - Nursing: Standardized patient
 - Medicine: examine how heart works
 - Journey of a raindrop through the preserve
 - Accessibility point of view
 - Scan 3D objects which can be seen through VR glasses
- VR Club for students. Students can use equipment themselves and make apps
- In most universities there is no centralized VR-center (services, tools)
- Accessibility point of view: XR can help student with limitations

10 big myths relates to learning - busted

- We only use 10% of our brain: We are using all the brain all the time
- I am X person or Y person (left brained/Right brained)
 - Introverts and extroverts: there are no such thing as a pure introvert or extrovert. Extroverted an introverted personality types had the same learning capacity
- We learn 10%/20% of what we read/see
- We should match student learning styles to teaching methods
- Students are born multitaskers
- There is an average student –If you design to average people you design fo no-one
- It is not about talent, it is about grit – (certain circumstances mater f.ex. family background)
- Active learning is no better that lecturing
- Learning spaces don't significantly impact learning
- The bell curve (normaalijakauma)

10 Recommendations for learning based on myths

1. Stop talking neuroscience nonsense

2. Stop categorizing learners into false dichotomies
3. Ignore “sounds reasonable” framework for learning without evidence
4. Never use the word “learning styles” again – focus on multiple modalities for all
5. Focus on the task, and help students do so (close the screen)
6. Stop designing for the average student and start designing for variability and diversity
7. Focus on learner effort, but recognize privilege
8. Make all learning active learning
9. Spaces matter, we can support active learning anywhere
10. Stop using the bell curve on education, start focusing on criteria and standards to help every learner succeed

Education 4.0 revolutionizing higher ed, a view from the UK (JISC – the UK:s membership organization providing digital solutions for higher education and research)

4.0 Automated complex tasks, Machine learning

Vision for the future of higher education teaching

- The 4.0 technologies will cause a long-awaited transformation of higher education teaching and learning
- Flipped, blended and self-directed learning will become the norm
- There will be steady progress but it will be another 10 years or more before we see the real transformation
- Our vision was formed with significant input from leaders in UK higher education teaching

Education 4.0 themes

- Teaching transformed: How will teaching change if AI and other technologies reach their full potential in universities and colleges?
- Personalized adaptive learning: An individual approach for each learner, taking into account their diversity, performance and behavior
- Assessment re-imagined: Can AI, digital experimental learning and micro-credentials replace high-stakes tests? Can they help to deliver true lifelong learning?
- Intelligent digital and physical estates: ...that work together and are responsive to student journey's and interaction

Machine intelligence / robotics – ultimately the game changer

- Already seeing adaptive learning making an impact in primary and secondary education. When will it work for HE?
- The virtual tutor is key: this technology is accelerating driven by the retail market
- Seeing machine learning impacting in a number of areas for HE, EG. Essay writing, plagiarism detection. This is just the start
- Where else will it transform?

Big data in education

- Learning analytics
- Curriculum analytics
- Wellbeing analytics
- Employability analytics
- Business Intelligence for institution

Why will it succeed?

- Students will expect it
 - This is how they live their lives
 - Students will increasingly have choices about how they are taught
 - It is likely to be seen as a better way of learning
- Society will demand it
 - It's a force for democratization
 - Society will expect education to respond to the pressure on public finances
- University will need it
 - Our knowledge of many subjects will exceed our capability to teach those subjects without the aid of 4.0 technologies
 - It is more productive and better use of time
 - Lecturers will want teaching methods to keep up with changes in research methods
 - Teaching cannot be the only professional service that does not respond to change

What should you do now?

- Start using new technologies
 - Start experimenting now
 - Collaborate globally
- Review your courses to ensure they educate students for the world of tomorrow, not today
- Work with your senior leaders to design the future
 - How would you design teaching in your organization if you started today?
 - What is the role of lecturers in the future and how do we train them for this new world?

Five ways the workplace will change

- More fluid "Gig" economy
- Decentralized workforce
- Motivation to work
- Life long learning
- Technology will augment humans

Much higher automation in knowledge tasks

Teaching students for the future

- Review curriculum to teach "human" skills away from repeatable
- In particular realign to emphasize soft skills
- Teach students to expect to reinvent themselves many times
- Develop capacity and teaching for lifelong learning as well as traditional three year degrees

Research 4.0: Sony aiming for a robotic Nobel Prize winner

- Our education vision is more mature
- Research is already being transformed through these technologies
 - Robots' running many experiments
 - Taking the drudgery out
 - Analyzing data in ways humans can't
 - More predictable
- Many big questions to be answered
 - Ethical dimension
 - Can we trust results we can't understand
 - Open science – do we need to preserve the AI (Artificial Intelligence)

Creating a culture of data –informed decision making

Engaging faculty in learning analytics: Evaluating culture change

- Strategy
 - Faculty of all ranks are instrumental for the adopting of innovative practices in higher education
 - Faculty assume ownership of new practices when they prove valuable for them, their students, and courses/programs
 - Learning analytics provides new insights into teaching, learning and student success
 - New insights shift how faculty situate their teaching within the broader context of student success
- Faculty perspective – from insights to actions
 - Insights: What is LA telling me about my students?
 - Understanding: why will this happen?
 - Actions: What can I do about it?
 - Analysis: How successful was it?
 - New insights: What new questions do I have?
- Measuring cultural change
 - Short term outcomes: Self reporting surveys, focus groups, interviews
 - Mid-term outcomes: observing changes in teaching, and course/curriculum design
 - Long-term outcomes: Dept. consistently takes advantage of LA in making decisions

Changing team culture to get solid data- circle of trust (data: hours used to projects)

- Basic understanding of what we were trying to accomplish by collecting the data
- Management support
- A tool for tracking the data
- A vision of how to show the data to different people for different use cases
- People willing/trained to track and report

Empowering the campus community to own tech transformation CRM case of study

- Building buy-in
 - Strategy-first approach
 - Enterprise-wide support of IT initiatives
- Fostering collaboration
 - Examples of effective stakeholder engagement
 - “Units uniting”
- Measuring success
 - Importance of quantifiable metrics for continued success
- CRM Objective
 - Aggregate, share, and utilize information across the university to deepen relationships and improve the experiences constituents have with Gonzaga, no matter which stage of the lifecycle they are
- Applied lots of tags
 - Project types, deliverable types, client types, program types, LMS types
- Strategy-first approach
 - Strategic objectives for CRM
 - Guidance principles for CRM selection
 - CRM functional and technical requirements
 - CRM system selection
- Governance approach
 - Selection and planning
 - Implementation
- Diverse perspective on technology value
- Primary strategic priorities for CRM
 - Utilize a central platform across multiple communications channels
 - Deploy targeted messaging to segmented constituent groups
 - Deliver a 360-degree view of students, alumni and other constituencies
 - Enhance reporting and analytics to enable improved leveraging of engagement data and deliver workflow and automation
- Effective stakeholder engagement
 - In addition to defining the priorities for CRM, aligned with Gonzaga’s strategic plan, core project team member led the requirements definition and vendor selection process.
 - Guiding principles for selection CRM solution
 - Best serves the institutions enterprise-wide priorities
 - proven track record of success at other higher education institution
 - Is compatible with university’s ability to invest in its implementations
 - Is built on scalable platforms that will evolve to continually meet the needs of the university
 - Accessible and intuitive user interface, allowing for reasonable user adaption

- integrates with other core university technologies and data sources while upholding data privacy standards and meeting data compliance requirements
 - Vendor has demonstrated strong partnership with other organizations
 - Through its CRM solution university will work to achieve measurable impacts and objectives as outlined in strategic plans
- A transparent, data driven vendor selection process, with representative stakeholders across units
 - Stakeholder-development use cases
 - Vendor scorecards with distributed results
 - Fit/Gap analysis of university's prioritized functionalities against vendor capabilities
 - Stakeholder vetting of peer references
- Quantifiable metrics for continued success
 - Realizing defines key performance (KPIs) and metrics
 - examples: increase number of international students, increase number of retained donors
 - Replacing duplicative tools and technology systems
 - Enabling gain in efficiency and a reallocations of time to high-impact practices by automating time-intensive manual process
 - Indirect: Supporting the achievement of strategic plan commitments and related objectives, like
 - Measuring integrations to improve cultivation, enhance engagement and strengthen relationships with constituents
 - Developing "in demand" reports for the board of regents, board of trustees and president's cabinet
 - Elevating university's brand awareness (i.e. the cost of not deploying a CRM relative to competition)