Creating a Culture of Learning Innovation

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\textbf{Abstract—} Writers talk about the speed of trust, the speed of disruption, and the speed of change. How can any of those be accelerated within the context of the ‘speed of education’?

In a relatively brief period, Saint Leo University has and continues to transform teaching and learning across multiple modalities through progressive, and aggressive pedagogical and technological methods. Code named, “White Whale” Saint Leo has an aggressive technology plan to legitimately empower and enable ‘best’ teaching and learning, at scale, while providing a social experience that no university has gotten right. Under the project heading, “Strategic Learning Design and Innovation” the University has already seen meaningful, positive changes in retention, enrollments, and instructional practices, after the first year of the three year plan.

Through use of new technologies, modeled instructional practices, and application of elements of neuroscience, this paper outlines a blueprint for learning design and innovation for any institution.

\textbf{Index Terms—}
Culture, Innovation, Learning, Rapid Adaptation.

I. INTRODUCTION

In 2005, Clay Shirkey [1] stated, “One of the things that happens when you institutionalize a problem is that the first goal of the organization immediately shifts from whatever the nominal goal was to self-preservation. And the actual goal of the group becomes 2 through n.”

Higher education is not typically known for innovation, nor is it identified by popular media as a lighthouse for rapid adaptation. Yet challenges experienced by other sectors and necessary solutions adopted by other industries such as banking, healthcare, or manufacturing, certainly exist for colleges and universities. The student population has evolved from primarily 18-22 year old students, to an average age of 25 [2], with universities providing fully online degree programs averaging ages of 30-35. Big data has impacted almost every organization type and colleges are seeking ways to leverage analytics so as to improve retention, enrollment, and even brand awareness. And better technological connection between learners, content, peers, instructors, assessment, financial aid, and a bevy of other offices or stakeholders is not only desired by families looking for “modern” institutions, they are necessary to drive efficiency, quality, and adaption.

Saint Leo University, cited as a pioneer of eLearning as well as cutting edge adopter of new instructional and assessment methodologies a decade ago [3], is under the same pressures to succeed as any institution. In fact, one could argue that the urgency is greater at Saint Leo, a Catholic, values-based institution of learning. Emerging from core values, the school does not have the same enrollment policies as many peer institutions. Saint Leo University does not simply take the most successful high school candidates who typically translate to the most successful college graduates. Instead, Saint Leo takes all students, room permitting, and has determined to give them the best possible readiness for life. However while the mission may seem noble, measureable outcomes are clear. Saint Leo must be myopically focused on student success and a litany of teaching and learning variables, to ensure student learning. This report will provide a brief history of Saint Leo University, and detail the creating a culture of learning innovation at Saint Leo University by which to meet these challenges and more.

II. LEARNING INNOVATION

A. Saint Leo University’s Roots

Saint Leo College was two pay cycles from bankruptcy in 1997. That was when Dr. Art Kirk was appointed President. Having come from the turn-around of another failing school, Dr. Kirk quickly forged partnerships with the military, changed enrollment procedures, dealt with infrastructure issues, fired and hired at every level, and very intentionally delved into eLearning.

eLearning proved to be powerful for the college in its financial transformation. Having adopted the modality extremely early, fully online courses and soon programs set Saint Leo apart. But of course it also meant learning the most effective practices in order to deliver quality teaching and learning, at scale, across multiple modalities.

As the transformation took effect, many positive and some negative changes occurred. The college became a university, while the student body grew from the hundreds to almost 16,000. The physical infrastructure grew, and the departments flourished. But as often happens in times of rapid growth, some problems fell through cracks or were solved by multiple stakeholders in differing ways. This included gaps in policy, processes, and even paradigms. Many of these were “patchwork” fixes or simply solved using different methods when under different campus umbrellas.

So, by 2014 when Dr. Kirk was ready to retire, the landscape of Saint Leo University looked extremely different. The organization had an unprecedented two decade run of growth and prosperity, but the culture of teaching and learning had stalled. Once a pioneer in eLearning, hybrid learning, video conference learning, and collaborative learning, the school had not actually changed its strategies (collectively) for design, delivery, instruction, or assessment in more than a decade. So, as the military downsized, as the country bounced back from an economic downturn, and as many other universities had become proficient in eLearning, Saint Leo University was facing a potential “perfect storm.”
B. Strategic Learning Design & Innovation

Two pertinent things took place during the 2014-15 year, regarding strategic learning design and innovation at Saint Leo University. First, not only was Dr. Art Kirk retiring, but so was the Vice President of Academic Affairs (VPAA). Both figures had spent more than 15 years moving the University forward in those positions. The vacuum of transition was palpable on campus and at extension locations. So, the search was on for a new President, but also for a new VPAA. As the 2014-15 academic year ended, Dr. Michael Nastanski, previously the Dean of the school of Business, was appointed as the new Vice President of Academic Affairs. Dr. Nastanski had a very different outlook on higher education than Saint Leo had seen before. Competition, market drivers, and program growth based on measurable inputs and outputs were top of mind. The second important occurrence was the last administrative hire Dr. Kirk made before leaving. Dr. Jeff Borden, a person who had previously traveled the globe speaking and consulting with numerous education stakeholders about education transformation, including utilizing eLearning, at scale, was hired as the Chief Innovation Officer. Dr. Borden examined hundreds of strategic initiatives from schools in more than 30 countries, every state in the USA, and across the K-20 landscape. Many of those initiatives struggled as others thrived. But Dr. Borden’s purpose was to implement a series of strategic, innovative solutions at Saint Leo, to “leap frog” into a place of smart pioneering and eLearning leadership. Strategic Learning Design and Innovation hinged on these two leaders creating a culture by which to deliver “best” learning, as well as create a steady stream of innovation specific to learning in the context of higher education.

Most innovators will explain that culture is the hardest aspect of repeated innovation within an organization. Jeff Dyer [4] reports that most, “top executives do not feel personally responsible for coming up with strategic innovations. Rather, they feel responsible for facilitating the innovation process. In stark contrast, senior executives of the most innovative companies—a mere 15% in our study—don’t delegate creative work. They do it themselves.” At the same time, the creation process—getting ideas—is also a bit of a “black box” for many organizations. But when an elevated and strategic focus is innovation, organizations need look no further than Jack Foster’s book, “How to Get Ideas.” His recipe for finding that golden, amazing, perfect idea is actually simple. “Get a lot of ideas [5].” This may sound flippant but, it makes great sense. The more ideas an organization (or person for that matter) has, the better the odds that some of them will be game changers.

So, how would Saint Leo University recreate a culture of learning innovation, when institutions of higher education are notoriously bogged down by historical and fallacious traditional thinking? How could Saint Leo transform learning across 230 full time and 1200 adjunct professors, ensuring innovative practices grounded in neuroscience, learning research, and best practices in education technology were used? How might Saint Leo University diverge from popular, cultural measures of innovation – namely the number of patents or trademarks a school has – to not only foster but measurably implement innovation in the teaching and learning context? The key is in a multifaceted approach.

Standing on the shoulders of giants in the innovation world, a framework had to be established. Remixing advice from the Innovator’s DNA to How to Get Ideas to Disrupting the Classroom and beyond, Saint Leo University needed a framework that aligned with its values, fit into its culture and took into account its stakeholders. That framework is shown in Fig 1: (1) define the actual problem; (2) create a sense of urgency; (3) control the narrative; (4) be opportunistic across the organization; (5) think associatively; (6) gather quick wins; (7) fail smartly; (8) establish realistic but important measurements; (9) refocus; (10) implement.

Defining the problem. To say that Saint Leo University is unlike other schools would be disingenuous. While many institutions believe their own politics, processes, or paradigms to be different from others, it typically is not so, in the author’s experiences. There may be some peculiarities to Saint Leo’s organization, such as both a faculty union and a faculty senate, but essentially the problems faced by almost every institution of higher education are faced by Saint Leo. Some are self-imposed and others simply exist. For example, Saint Leo’s core values are baked into the DNA of the institution. Every syllabus includes objectives that tie directly to at least one core value. This may seem like an admirable connection back to mission. But this mission extends to every aspect of Saint Leo’s behaviors, including enrollment. State schools often use GPA or cut scores on the ACT / SAT to determine acceptance into their programs that are higher than Saint Leo’s. So, Saint Leo is not comparable to a Harvard or Yale whose students would argue succeed regardless of institution. But importantly Saint Leo struggles to be compared to the University of Central Florida or Florida State University because the school takes most comers. If a student wants an education, Saint Leo believes it is their responsibility to educate that student. As a result, the retention numbers at Saint Leo are not what they are at R-1 schools and struggle to be what they are at local state universities. Add that to problems not self-imposed, such as normal motivation issues, college readiness, instructional variation, connection of learning to real-world activities,
etc., and the issues for Saint Leo seem as large as any out there.

Creating a sense of urgency. So, within that context, Saint Leo University has chosen to leap forward with Strategic Learning Design and Innovation. But how can this be done in the typical context of higher learning? How can rapid, intentional, learning innovation be accomplished by so many stakeholders when many of those participants are often seen as notoriously unhelpful? Anyone at any university knows stories of political jockeying, plan blocking, or simply over-heightened criticism to the point of paralysis. Saint Leo is no different than any other institution. There are always challenging people to deal with. But in the case of this strategic initiative, or narrative, could there be a way, and Dr. Borden and others have found the context of the time to propel people forward. For the first time in seventeen years, the school is facing a revenue loss. The endowment will not grow in 2016, making the new President and the board concerned. Talk of key hires as well as key fires is not lip service. But it also suggests that urgency is both necessary and real. This meant starting, out of the gate, with opportunities for differing constituents that might pull them toward the final goals and objectives. It also meant for basic usage of certain technologies and processes, leading to larger, better use of more methodologies and tools.

Controlling the narrative. Rhetoric is something that has been studied and strategized for years. Notably Aristotle, the original rhetoric academic suggested that persuasion was dependent on three canons of rhetoric: ethos, pathos, and logos. In other words, this rhetorician and lawyer, who represented clients who would be put to death if he lost his arguments, realized that there are different kinds of persuasion that should be employed to reach different thinkers. Ethos, or credibility, is crucial for many who depend on citations, statistical significance, or other like-minded groups who have tried a solution. Pathos, or passion, is a need of people who want to feel good about a project. Seeing or hearing excitement in the persuader’s actions as well as feeling like one is helping others often “speaks” to those whom appreciate pathos. Logos, or logic, is the reasoned existence that makes sense of the world. A logical argument can be agreed on even by skeptics or dissenters, making persuasion happen. But interestingly, Aristotle added a fourth canon near the end of his life. Perhaps when on trial for his own life he realized that argument alone would not get him out of a gate, with even overcame the lack of the three other canons. Translated as “conflicted plot” the idea behind mythos is that common language leads to a need for conflict to be resolved. That disequilibrium becomes a driving force for all stakeholders who tell the story and also becomes a barometer for the original storytellers as they begin to hear specific language and terminology spoken back to themselves. Integrating the ethos, pathos and logos would all be needed to address the conflicted plot. The narrative at Saint Leo started with the “killing” of our existing Learning Management System (LMS). Pearson Learning was to stop supporting LearningStudio, the 10 year LMS of the institution. This allowed our narrative to ask what it would be like to craft an entertainment center today vs building one over the last two decades. Almost everyone understood this narrative. In the latter case, you would need a massive cabinet, filled with components both new and outdated, so as to play your CD’s, DVD’s, and VHS tapes alike. It would require innumerable wires and connectors too. But if one was to build a system today, all they would likely need is a smart TV, possibly a digital receiver such as AppleTV, Roku, Chromecast, etc., and a sound bar. No cabinet would even be necessary. This was the approach we took to generating a new Learning Environment and the metaphor connected with people.

Be opportunistic across the organization. How many problems need fixing at a university? How many issues are there with courses, assessment, technology, delivery, etc.? Attempting to fix at least two problems with every single solution is a worthwhile exercise. Creating an experience to elevate the discourse and potential value of learning innovation might be seen in Saint Leo’s Alternate Real Learning Experience (ARLE). In this first course of what hopes to be a library of offerings, seven disciplines and nine different sections converged around a compelling experience. In the first ARLE at Saint Leo, that converging event was a mock Presidential debate and vote. Allowing solutions in curriculum integration, collaboration, and eLearning to come together in a single solution, the event proved to the one of the most memorable, as well as publicly lauded learning experiences the university has ever seen. Likewise, our technologies began to come together. We established a “five legged chair” to build our new ecosystem. These tools provided far more functionality than Saint Leo stakeholders had ever seen and far more analytic capability than ever before. Essentially, we needed our ecosystem to include genuinely social tools (personal, organizational, and academic socialness), productivity tools, learning tools, assessment tools, and academic tools. Plus, all of these tools needed to work together in far more than a “single sign on” capacity. Being opportunistic about old technologies going away gave us a “blank canvas” by which to create this ecosystem.

Think associatively. According to the Innovator’s DNA [4], “Our research led us to identify five “discovery skills” that distinguish the most creative executives: associating, questioning, observing, experimenting, and networking. We found that innovative entrepreneurs (who are also CEOs) spend 50% more time on these discovery activities than do CEOs with no track record for innovation.” While all five activities are needed in their framework, the authors note that associating is the first and often the hardest skill to embrace for executives. At Saint Leo University, the need to think associatively was strategic and intentional. Sessions were specifically held asking students, faculty, and staff to think about the problem in launching innovative applications. Several projects began that way. One notable example is an enterprise roll-out of Microsoft Office 365, including many new tools such as One Drive, One Note, Sway, Mix, and Lens. Every student, staff, and faculty member has access to the software, both cloud versions as well as five downloads for local use. This kind of enterprise roll-out is typically found in business contexts, but rarely at universities or colleges. Therefore, sharing of files from any single person to any other person can become a challenge. Not only does this roll-out drive tremendous efficiency for Saint Leo University, it also allows for opportunistic redevelopment of assessments and evidence of learning in new and creative ways.
Gather quick wins. A significant problem for many boards, presidents, and executives in general are long-term solutions. Most would likely agree in theory that the kind of transformation it takes to move an entire university to another paradigm would take a lengthy amount of time. But rarely would the initiative be given the kind of staying power necessary to see it through. Executives get impatient without results, no matter how foundational the infrastructure. Therefore it is key to find as many wins along the way as possible. For instance, at Saint Leo the use of an Open Educational Resource known as “MeTL” (Monash eTeaching & Learning) is changing factors of motivation, engagement, and measurement in all classrooms, regardless of modality. It is a shared whiteboard that allows faculty to see engagement analytics in the moment, as well as creating a platform for student to generate both classroom content and personal notes that are able to be visualized in a semantic cloud. As implementation advances through Alpha and Beta stages, efficacy is under review in determining positive impact on retention numbers. But the notable and numerous quotes about the power of MeTL by professors (e.g. “I couldn’t imagine teaching without this tool.”) has been a fantastic win within the overall rollout.

Fail smartly. Although it cannot be verified, Edison is often attributed with, “I haven’t failed. I’ve simply found 10,000 ways that do not work.” Every writer who details how to be innovative, creative, or entrepreneurial speaks about the importance of failing. Innovators need to expect failure, prepare for it, and find the best ways to reassess, fix, or move on quickly. Not every initiative has worked at Saint Leo University in regard to this project. The office of Learning Innovation applied to TEDx to host a conference showcasing the learning innovation at the school. The application was denied by TEDx. The team had to determine if it was worth the time and effort to try again or spend that capital in other ways. This was just one example of smart, managed failures that would not kill the project in the worst case, but could bolster the project in the best case.

Establish realistic but important measurements. In the book, “How People Learn [7],” experts are distinguished from novices in several ways. One of those is, “Experts’ knowledge cannot be reduced to sets of isolated facts or propositions but, instead, reflects contexts of applicability; that is, the knowledge is “conditionalized” on a set of circumstances.” This notion, backed up by both brain science and learning research shows the “experts” often get parts of the problem wrong, despite being able to get the problem as a whole right. The research, supported by the Department of Education, makes the case that the grading system in education is actually setting students up to never reach mastery or become an expert, forcing them to stay at the novice level. Kohn [8] reports research which proves grades reduce interest in learning, grades reduce desire to challenge one’s self with difficult tasks, and they even reduce the ability to think. Add to that the body of evidence suggesting grades are never truly objective nor reliable, and measurement starts to look different in an education context. Because Saint Leo University’s desire is to measure what is important (behavior, motivation, grit, etc) and not simply what is easy (grades, attendance, etc.) a high degree of focus is given to every initiative regarding what will be measured and how that will be disseminated. The goal is to continually measure observable behavior over surveyed opinion, to measure outcome over grade, and ultimately to try and measure learning itself. The system being created is designed to create an index of learning that will show learning growth and learning health over time. But most important to that effort was a tech summit by which Saint Leo brought all of the major, technology providers together for a day so as to stitch together a single experience. The desired result of a single ecosystem vs several disparate systems is crucial if technology is to truly enable and empower. Saint Leo invited all technology partners; uCroo, Chalk & Wire, D2L, Microsoft, MeTL, MuleSoft, and Smart Sparrow to the tech summit and six of the seven unconditionally agreed to make the vision a reality. They not only worked that day, actually building API and LTI integration points in the moment, but have since done this both through and outside of Saint Leo for the betterment of our students.

Refocus. Taken directly from Jack Foster, it is noted that “stepping away” prior to full implementation or roll-out is important. In other words, letting the project “breathe” (and the creator “relax”) is good for the process. How is this done? If a full-scale project is rolling out, there are plenty of other projects to focus on prior to implementation of any single initiative. It is also remarkable how often focusing on one project gives better perspective on another project. For example, when Saint Leo learning innovators were ready to kick off an Office 365 contest for students, faculty, and staff, the work done to propagate MeTL into the classroom provided an interesting set of challenges for the contest.

Implement. Finally, each initiative must be piloted, rolled out, or otherwise started. If the above conditions have been met, there will be many initiatives running concurrently, which means a lot of project management as well as experimental research to determine efficacy. In 16 months, Saint Leo has implemented, to one degree or another, over half of the original initiatives for the Strategic Learning Design and Innovation project. They include white labeled technology whereby students can enter a single experience, despite being in multiple disparate systems. This system has dropped the coded working name of “White Whale” because Saint Leo found the elusive creature. It is now called “Lions SHARE” — apostrophe missing by design. This ecosystem includes access to a social platform (uCroo) as a jumping off point. Students can then go to “Courses” through the D2L learning management system. They can click on “Interact” and participate in a conversation using the shareable whiteboard (MeTL). The new ePortfolio system (Chalk & Wire) allows for both student assessment and, in order to gain more professorial exposure and usage, will be our tracking tool for promotion and tenure for faculty. Office 365, baked into the system as well as through various parts of the system is simply labeled, “Productivity” and gives far more functionality to professors and students than previously achieved. But aside from all of the technology, Saint Leo has also been clear from the beginning that the technology is simply a means to an end. The ecosystem provides a foundational set of empowering, enabling tools by which faculty can do what they do better, faster, and with more transparency. So, in addition to the system, Saint Leo has, in parallel, created models that change process, shift paradigm, and improve methodology such as the Alternate Reality...
Learning Experience, an Innovation Incubator for faculty and students, experimental models for content including software applications (Intellus Learning), OER pilots, Competency Based Learning initiatives, classroom (student) generated content, a 3-D printing initiative, several gameful learning experiences, an innovation blog, and a curriculum integration experiment. Prior to December of 2017, there are a dozen more initiatives, specific to this project, planned for implementation.

C. Results

Knowing they must satisfy key stakeholder groups, must meet accreditation standards, and must meet both financial and ethical challenges, Saint Leo University’s Academic Affairs group has committed to a course of action that is not only aggressive, but seeks to intertwine the kinds of individual initiatives typically experimented with in small numbers and only one at a time at most universities. This strategic focus has required new levels of communication, transparency, and ideation to be sure.

While little numeric evidence is available at this time, subtle but important shifts are starting to occur. Most notably, faculty seem to be aligned with administration. While not a perfect overlap of goals and process strategies, the groups appear equally excited and forward facing regarding Strategic Learning Design and Innovation. Great pains were taken to ensure faculty buy-in throughout the process, and that will continue.

One marker is that common semantic choices are being used by all stakeholders, suggesting the narrative is shared. One obvious example of collectivism was seen during the Faculty Development and Enrichment day. Typically attended by 50-60 full time faculty, this event allowed faculty to help design the best ways to develop and enrich their development, in alignment with Saint Leo’s goals, and in a measurable way, was attended by 140 professors. In the 3 hour session, only 4 faculty left before the end, and a genuinely robust plan was started.

Likewise, transparency around and participation in learning technology projects has been extremely high. Faculty and staff continually express their appreciation for access to tools and new capabilities specific to eLearning. Early adopters are numerous and consistent requests for access are received by the office of innovation. While the office of Learning Innovation strives to set innovation and technology apart, there is a group of early adopters who simply enjoy new tech.

Finally, students and parents alike are taking notice and claiming appreciation as well. As Strategic Learning Design and Innovation starts to spread into enrollment seminars, parents are explaining the “unique, best, and only” aspects of the strategy, making Saint Leo a desired location for their students. The students themselves are already seeing appealing enablers for their own success, be it academic, social, or something else.

D. Conclusion

Saint Leo University has intentionally and purposefully moved into a transformative period by which to establish a culture of learning innovation. For some, the goal is to recapture a time when the school was seen as a clear pioneer. For many, the desire is simply to improve learning and potentially life for teachers and students. The project is grand and the effort required to achieve it is significant, but with the backing of the Board and the President, the Academic Affairs team is committed to seeing this project through. When realized, the result will not just be transformation of a culture. The output will be learning measured in a new and likely desirable way. Significant improvement in measurable student performance while maintaining a commitment to underserved populations will strengthen enrollment and retention thereby reversing the impact on revenue from increasingly aggressive competitors. Strategic Learning Design and Innovation can change the learning experience for all students, at scale, in a replicable fashion. Saint Leo University will re-establish itself as the leader in multi-modality, mobile learning and become the model for 21st century education.

REFERENCES


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