



# REIMAGINING MINNESOTA STATE

## Forum on Reimagining Minnesota State

### Session 5: Innovative Models: Improving quality, increasing access and reducing costs through system-wide innovation

#### Session 5 Summary

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**Overview:** The fifth session focused on how higher education institutions and organizations are balancing the necessary but at times competing goals of serving new student needs, improving quality and outcomes, and reducing costs. Session 5: Innovative Models explored how higher education institutions are approaching the creation of new and innovative educational and business models that support the development of new markets, improvement in quality and student success measures, and the achievement of organizational financial goals by reducing costs and identifying alternative or additional revenue streams.

**Guiding Question:** *How will Minnesota State reimagine our approach to innovation to simultaneously serve the needs and expectations of the student body of the future, improve quality outcomes, and ensure the financial sustainability of the system?*

#### Forum Participation

The Forum was attended by approximately 50 people in person and by approximately 120 people online.

#### Briefing Paper Executive Summary

Innovation has become widely recognized as both a major goal of economic activity and one of the most important instruments through which organizations and countries gain and sustain competitive advantage in globally competitive marketplaces. Innovation has become a key functional activity in organizations, in much the same way as marketing or finance are. While it may not be possible to control and manage innovation, it is possible to design and control the contextual and organizational conditions that enhance the probability of innovation occurring.

Innovation is not a new concept but the rapidly changing environment that has become the hallmark of the 21<sup>st</sup> century has made a capacity for deliberate innovation an important companion to technological developments. Innovation is rarely a single event nor does it follow a linear path. It more often than not combines knowledge and expertise from multiple fields and combines that knowledge in novel ways to solve new or existing problems.

Much of the current innovation literature focuses on the importance of organizations developing and implementing an innovation strategy – or a coherent set of interdependent processes and structures that dictates how the organization searches for novel problems and solutions, synthesizes ideas into a business concept and product designs, and selects which projects get funded. Authors have developed different matrixes to provide guidance to leaders on how to distribute an organization’s time, attention and resources as part of their innovation strategy.

**The Innovation Landscape Map (Pisano, 2015).** When creating an innovation strategy, organizations have a choice about how much to focus on technological innovation and how much to invest in business model innovation. This matrix, which considers how a potential innovation fits with a company’s existing business model and technical capabilities, can assist with the decision. In thinking strategically about the four types of innovation, then, the question is one of balance and mix.

**Innovation Matrix (Satell 2017).** The Innovation Matrix asks two crucial questions: 1) How well is the problem defined; 2) Who is best placed to solve it? As the innovation matrix shows, once you have thought about how well defined both the problem and the domain are, you can narrow down your options for an innovation strategy to one of just four quadrants: basic research, breakthrough innovation, sustaining innovation, and disruptive innovations.

**Three Horizons Framework (Satell 2018).** The idea behind the three horizons framework is not to eliminate uncertainty, but to take your level of uncertainty into account when allocating resources. You invest the bulk of your resources in capabilities (e.g., skills and technologies) and markets you know well, a much smaller portion toward adjacencies, and an even smaller proportion to future opportunities that don’t even exist yet.

**Managing Innovation Process and Capacity (Nagli and Tuff 2012).** Managing the innovation process requires that leaders focus on four different interrelated dimensions of the innovation process:

- **Managing attention:** this is a cognitive problem and innovation is a creative way of understanding some reality. It involves shifting perspectives.
- **Managing ideas:** This is a political problem, in which the problem-solution must be acknowledged and validated by other people within the organization.
- **Managing whole-part relationships:** This is a managerial problem since, if an agreement to act is achieved, actions must be coordinated in order to succeed in realizing the solution.
- **Institutional leadership:** This is a human interaction problem and leaders play a crucial role in drawing together the previous phases.

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## Forum Session 5: Speaker Key Points

### ***Bridget Burns, Executive Director, University Innovation Alliance***

We all should be thinking about how we work together on improving outcomes for students. The broad overview of higher education, especially in the United States, is failing a number of our students. It is something we are all concerned about and will require us all to work together to address it. This is because higher education was not actually designed around students. It was historically designed first for faculty and then the administration, but acknowledging this reality makes us uncomfortable. Students leave for entirely predictable reasons, and they are frustrated that institutions cannot get their education right. Higher education in America was not designed for students, but there is not someone in an ivory tower trying to frustrate faculty. The bad design was entirely accidental.

Take applying for graduation, for example. At many places, the student needs to let the institution know that he or she is ready to graduate. They have to fill out a bunch of forms and pay a fee. That is an example of a bad design. In the private sector, we would expect something more, and this generation of students is expecting something more. Design thinking can help us do this better. The nice thing about design problems is that you can take away motivation. You can remove questions about people's intentions, and you can focus on how to resolve the problem through better design.

This is not special to Minnesota or any state or institution across the country. It's broadly about higher education because of a concept called isomorphism. Essentially institutions mimic what occurs elsewhere as a way to determine the way things should be designed. But isomorphism can also support innovation and replicate emerging practices. If we see innovation, we can replicate it. When higher education was created in the U.S., it was about preserving our democracy. We looked for signals about what higher education should look like – what was good and we did that. But what we need to discuss is that these elite models that were mimicked back then are no longer serving our students today.

1. It was designed around the few and not the many. It wasn't designed around the scale of students we need to serve. It was designed around the 18-22 year old.
2. It was designed around a misguided belief that rare is good and that it is a signal for quality. If it is hard to get in somewhere that means it must be good. It is difficult to measure quality, but we should not resort to the lazy indicator that rare is high quality.
3. There is a belief that when students drop out, it is on them and that it is their fault. Another possibility is that the institution is doing something that isn't working for the student. We need to address the idea that if a student of color or low income student drops out, it is a result of a unique characteristic about them that has made them unsuccessful. The traditional response has been to bolt on a unique program or center for that type of student, but that is misguided. The truth is that they are just a student with more stress in their life and should be your leading indicator. We should learn when we lose one of these students because they are showing us the flaws in the system that need to be re-engineered.

We are facing a shortfall of 11 million college degrees in the country. Higher education is simply not producing enough quality credentials needed at the rate needed to meet economic demand. This is in part because we offer degrees in things people don't want anymore. They need degrees in new areas where we don't offer them, and we fail half of all people who walk in the door.

For the first time in history, low income students are the majority in K-12. If you are born into a low income family, you are much less likely to complete a college degree. About 6.2 out of everyone 100 individuals from the lowest income quartile completed a bachelor's degree in 1950. After all of our hype about progress and innovation, only 8.3 percent complete one today. We have made little progress with low income communities with bachelor's degree attainment. At the same time, we've doubled the degree attainment for high income students. As a result, we have doubled the achievement gap. This is a challenge for every state in the country. Institutions will need to work together because no one campus can address it, and no single institution can solve it.

The good news is that institutions are beginning to work together to address the attainment challenge. Based on the radical premise that institutions across the country are all struggling with this same problems, chancellors and presidents asked the important question: "What if we could stop being obsessed with the boundaries of our institutions and start having conversations, build trust, pitch and catch ideas, and actually solve some of these more global challenges." They formed the University Innovation Alliance (UIA) because they wanted to unite around a shared sense of urgency about the fact that we are making very little progress on attainment and are spending massive amounts of time,

energy and money attempting to solve these challenges on our own. And students are the ones paying the price.

The UIA institutions agreed to four basic commitments:

1. Produce more degrees and commit to aggressive attainment targets
2. Produce more low income degrees
3. Innovate together and transparently share data
4. Actively hold down costs

UIA's first goal was a stretch goal that was announced by the White House as part of the College Opportunity Summit. UIA committed to graduating an additional 64,000 students. They are now on track to graduate an additional 94,000. It turns out they were not ambitious enough and completely under-estimated their ability to impact the outcome. In the last five years, the UIA institutions have 27,000 additional low income graduates, an increase of 29%.

*What are some of the ways they have worked together?*

Every year UAI institutions have scaled one massive intervention that has been successful at one UIA institution. Through scaling, member institutions talk about the shared problems and vet ideas. Institutions have a lot of uncertainty when exploring potential innovations: What is the best practice? Which vendor? How do you implement? It is very difficult to know what is real and substantive and worth implementing. Relationships and building trust is an important part of the collaboration.

UIA members recognize that there is no silver bullet and progression of interventions is important. For example, you cannot do completion grants if you have not done predictive analytics. There are some things that can be done to encourage people to focus on scale. The innovations were all chosen by the campuses. Projects that are chosen from senior leaders and forced onto campuses do not work. If you set the table for institutions to really talk about the challenges facing their students and to learn about what is really working out in the field, they will be able to identify the projects and interventions that they think will actually work.

The University Innovation Alliance modeled its Fellows Program from a similar approach at Arizona State University. College presidents have a lot of good ideas, but they rarely have a lane to put them in. No good, innovative idea has a clear lane. The University of Arizona has an Office of University Initiatives that is intentionally designed to allow for the President to take action on good ideas. The office is staffed with Fellows who take wild ideas, prototype them, and build them up so they have a chance for success.

*Lessons learned from UIA*

How do you cultivate innovation across the system? UIA designs their convenings in a way that allows for trust building. UIA convenings are not built for presidents and chancellors but the people who are actually doing the work on the ground. Too often we are focused on the leadership level. You need the leadership level to say this is important, but it's really about the time people spend together building relationships and sharing insights.

It's also important to pay attention to incentives and rewards. In higher education, the incentives are almost always individual (You get the degree. You move up in the rankings. You get the financial resources. You get the attention). Publicity rarely goes to multiple institutions. Rewarding collaboration means thinking about incentives that reward multiple institutions. If you're at the system level and it's possible to award a grant to one institution, you incentivize competition and not collaboration. How do you design grants in a way that makes people actually want to work together? Collaborative grant making is very hard and you need to understand what the obstacles are. This includes data sharing agreements, MOUs, and shared contracts.

Collaboration is also about sharing recognition. At UIA, an institution gets on stage for scaling an idea and attributing where they got the idea from. Generally, there is not as much innovation as people think, especially on individual campuses. Where the true innovation occurs is when you take multiple players and take an idea that someone else discovered and expand it and then sharing back. Make it so people recognize where they got their ideas and who inspires them.

Another issue is that we have a capacity problem. We believe that if we give you more work, your plate will expand. We do this all the time to faculty and administrators. Building capacity means project managers who can support faculty and administrators. On campuses today, you know who the effective people are because they have more work than they can possibly do. UIA invests in hiring fellows, most who are first generation and students of color. We see them as the future leaders of higher education. We are helping them learn change management and shepherding innovation – skills that higher education really needs. The UIA Fellows support leaders so they have time to innovate.

UIA institutions also have created capacity for process mapping. Process mapping costs only post it notes and time. Through process mapping, you see and not romanticize the system and how it actually works for students. You cannot bring a new innovation into a corrupt system and have it be effective. It also reveals where the low hanging fruit are. All of UIA Fellows are trained in process mapping.

***Louis Soares, Chief Learning and Innovation Officer, American Council on Education***

The work of innovation is intentionally seeing the system you are in so you can lead it. We know from history, when society changes, colleges change. It doesn't happen instantaneously nor does it happen overnight. It takes time. We are in one of those moments, what some are calling the learning economy.

Popular topics in higher education right now are:

- Technology. It will be all consuming. Everything that can be digitized will be.
- Closing equity gaps in higher education and how well we are doing it.
- Quality learning. We don't often talk about how we know if students are actually learning anything. Assessment is a very challenging topic. We are starting to understand that teaching is an art and a science.
- Leadership for the future. How do we accept these challenges, accept who we are, and move forward.
- The public is losing trust in higher education even as you're doing the difficult work.

Data helps us understand diversity and direct efforts toward improvement. How do you balance being a system with diversity and leverage strengths of a diversity of institutions? Minnesota State is described as 7 and 30. How much diversity does that actually hide? 54.8% of working age Minnesotans have a degree – bachelor's and associates. Those folks will need continuing education. The remaining don't have any.

One of the greatest challenges and movements is aligning program level data with financial data. It is an emerging trend and holds the potential to change the system. We are beginning to align at the outcome level to understand the return on investment of different programs and systems. When we think about innovation, one of the hardest things to do is to link innovation to sustainable financial results and to institutional finance. Students are footing more of the bill because of state disinvestment. One of the fallacies of big numbers is that when you pull out debt load information, students attending public, 4-yr institutions average about \$28,000 in debt. ACE has been doing polling, and when you ask working class and low income families what the average debt load is, they say \$87,000. Even when you show them the data, they don't believe you.

How much learning is happening outside of formally structured environments and what that actually means to higher education?

What do students look like – the post-traditional learner:

- 37% are ages 25 and older.
- 49% are financially independent. Federal financial aid policy is designed around financially dependent students. It's not designed for a system in which nearly half of all post-secondary students are financially independent individuals.
- 36% of independent students are living at or below the poverty line.
- 22% have dependent children.
- 24% are first generation.
- 44% are attending full time. This number raises all kinds of issues. If this is true, what does the built infrastructure of colleges need to look like? How many dorms do you need? How many classrooms do you need?
- 42% are enrolled at 2-yr colleges.
- 61% are working while in enrolled. This number has implications with how people identify – their learning identity.
- 14% are living on campus

You see the emergence of the post-traditional learner. There are all these terms that we use to talk about students (at risk, low income). They become part of the public dialogue and policy conversations. They structure the way money flows and where innovation can happen. They are leading wage earners for their families. The cut off for traditional students tends to be 25 years old because you age out of being eligible to be financially dependent after 24. Post-traditional learners combine working and learning at the same time and move between the two frequently. They pursue knowledge, skills, and credentials that employers will recognize and compensate. Many require developmental education because they are first gen and may come from underperforming K-12 systems. Many seek academic and career advising to help navigate their complex path to a degree because their lives are complex and they need it.

*The adult student identity model.* Post-traditional learners are not just different demographically but they think differently about their relationship with school. How do you view yourself as a learner? Are you a parent first? A worker first? What kind of mastery do you have in any knowledge domain? What are your set of life experiences that dictate how you look at college? From those come a learning identity that comes from your role as a worker, a family member, a community member, and a student. Engaging that learner holistically is the key to innovation. You transform higher education by engaging these students and their learner identity.

If you're trying to adapt you need to understand your institutional model. We tend to think about Carnegie Classifications but are these the right ones? Understanding your institutional model will tell you what your value proposition is. You have to have a sense of that – what are the technology tools at your disposal? Who are the educational partners that you will engage and partner with in a sustained way? What can other folks do? What are the policy and standards environments that you exist in? What's the model of a college? Institutional form and governance? Instruction and pedagogy? Financials? How are these connected and how do they work?

As you think about the soup you're swimming in, here are few transitions that are happening. We are moving:

- From learning stocks to learning flows
- From data poor to data rich

- From a system focused on inputs to a system focused on outputs
- From a system that is less organized to one that is more and less organized
- From a distinction of academic or professional preparation to a synthesis of both
- From an institutional view to a system view

*Learning that happens in non-structured environments.* What is the relationship between structured learning and the learning that takes place outside of structured environments? Higher education should be leading those conversations. Hospitals develop a lot of knowledge but it is not their core work. Their core work is healing. Our core work is teaching and learning and research.

*How do people learn?* They are linking the learning science and expertise development literature. The number 10,000 was popularized by Malcolm Gladwell in that expertise development requires 10,000 hours to become an expert or master. 120 is the number credits it takes to get a bachelor's degree. If your goal is to master a body of knowledge, what should your target be? 120? Or 10,000? Is a BA a stock or a flow? 40 classes? 120 credits? How is it connected to the other learning that happens outside of the classroom and how does that get you to the 10,000? Does that need to happen in 4 years? The 4 to 6 year mark that we use. It's a good measure to understand productivity, but if the learning economy is changing as much as we think it is, if learning is becoming a flow, are we limiting ourselves by using that number? How would that change an institution over time?

Some of the evidence that learning flows are happening. The demand for learning that is happening in the professional setting is growing. People are seeing a need for learning as they go through their professional lives. Learning is also becoming more organized, including evidence-based governance. Student-level learning data is providing more focus and making teaching more of a science. Credentials are becoming more transparent, and they are becoming more connected. We are beginning to connect financials to learning outcomes to understand return on investment. We are creating purposeful collaborative networks, like University Innovation Alliance and Achieving the Dream.

Education is becoming less organized as we innovate around challenges. These include innovative partnerships and micro-masters leading to low cost masters degrees. College Unbound is a non-profit that serves specifically low income students from underserved populations. Their goal is to deliver a \$7000 bachelor's degree to low income individuals through partnerships. It is the extreme version of what innovation can look like in a very unbundled way. We will see more diversity in higher education models and not less in the next 25 years.

### ***Panel discussion***

*How does an innovation system or institution balance risk aversion with innovation?*

In higher education, we think we have to do everything ourselves or create a new standalone office for support. There are a lot of partners in local communities that are interested in helping us. Conduct a needs analysis and understand what exists in your community and see what a partnership might look like. Too often we assume that it's going to look like a new box that we add onto the other boxes, and that is rarely the path forward. Risk aversion is real, but in the end we are failing half of our students. We have to stop being paralyzed by the fear of acting because by continuing to do what we are doing, we are failing a large number of students. We should free ourselves up to try things. It's better than the status quo.

Don't think you have to do it as a standalone. Leverage really meaningful relationships to solve problems for students. The Chicago Housing Authority created a dorm from its properties to house students from five surrounding campuses and put support services at that housing authority. It has a financial arrangement with the institutions but also gets funding from the state. It's when you consider what your value proposition is and what your sustainable financial model is that allows you to build and sustain

partnerships overtime. You should get a sense of risk so you know how you might rapid prototype a solution, but you should do some testing and a pro forma to understand the financial aspect.

*When 60 minutes featured the Innovation Alliance, Michael Crow said one key to success was to evolve from being a faculty-centered organization to a student-centered organization. A question is what does that mean and what are its implications for innovation?*

First, it's important to clarify that quote was from when they were talking about ASU and then cut it to make it about the Alliance. But I would say it's about putting students at the center of all decision making and strategy, and I think that faculty are an ally in that. Faculty do not want us to be having conversations focused solely on them and their needs. They are the ones who have a front row seat for the consequence of us not being strategic with our design. If we are really going to be responsive to adult learning, we are going to have to be more creative and prioritize scheduling classes at times that meet the needs of students. Faculty are allies in that. They want to meet students where they are. They have always been the ones pointing out where the design of the institution is failing students. It's often that our original design was for faculty, but I actually don't think our design works for faculty now. You can talk about the adjunct challenge. We haven't taken a moment to step out of the work, to work on the work. Too much of how I see institutional behavior is that we are on this hamster wheel. We have that deadline, enrollment is coming, the semester is starting, and we don't take the time to ask ourselves "does this make sense and how could this be better designed." I would argue that this where we see a merging of the interests of faculty and students.

*How do we shift from the traditional curriculum to a student-centered curriculum, and what are some promising examples that you've encountered?*

It's already here in parts. Institutions that are primarily serving adults normally do not focus on trying to preserve the discipline specific thing. If we were institution-centered before and we're trying to be student-centered now, the real goal should be to become learning centered.

For learning to happen, faculty do certain things, students do certain things, and administrators do certain things. One of the challenges is that we've never had really good tools to understand if learning was happening. And we're getting better at that, and I think that's where we're heading. If learning becomes the metric you're tracking, then disciplines become part of that overall goal and not the other way around.

*How do you send the message on rhetoric and reform? Why does the premise always have to be that we are doing a terrible job instead of there's tremendous potential? Framing things in the negative doesn't help the cause.*

As a policy writer when you write about innovation, you often frame innovation around challenge. Like any public good, you see this dichotomy -- this overall sense that higher education somehow isn't doing what it should be doing. But if you ask people about the institution they know the best, they're OK with it. That has always been with us. What's changed more recently is that the stakes are higher for more Americans. That is what is reflected in the public polling data. Folks don't have a deep understanding of the system they are being asked about. That doesn't mean we don't have a lot of work to do. There's a lot of noise in the public data but we do need to pay attention to the metadata. Those are the folks we have to build trust with -- families, students, public policy makers. Are we well enough aware of what we are doing that we can articulate it in such a way that they understand us better?

I think people are inspired by grand challenges. In places where people have all responded to a call, they've all been personally affected by higher education. We respond best to the challenges facing society and how we could step up. I don't think we need more softeners. It's not helpful how people talk about higher education right now, but it's also not really sinking into the boundaries of our institutions. I hear what the public is saying. And then I come into institutions, and I hear that stuff isn't real. I think



having some urgency is helpful, but I don't think of it as trying to depress us. I think it's about inspiring us to really step up and solve this grand challenge facing our country. How are we going to realign our work to serve the future economic competitiveness of our country? How are we going to re-engineer things? The bone structure of higher education is so good. What we do is so good and so transformative? This is the only way people get out of the cycle of poverty. It plays such a critical role that we can't put on blinders. Because we care so much, I don't think we need to soften this. People will rise to the challenge.

*Previous speakers have implied that if you change technology you change behavior.*

Once you introduce tech tools, it does change behavior over time if the change in behavior helps you to learn. And if the technology allows you to provide services for less money, what do you do with that savings? Whenever money moves, someone's at risk within an existing system. Technology changes the pattern of how people do their work. The other issue is that once you have evidence that the tools are working, how do you use any savings to reinvest? Does that cause challenges for how a community comes together to figure out what to do next?

Technology has to serve the people. There are many ed tech projects that are a waste of money and have been parachuted in from the outside and dropped like a dud and don't work. Let's design our work around our people and how they are actually using it. Let's not fantasize that we're going to transition the workday tomorrow and it's going to be so easy. We think technology is the answer. The formula for innovation is leadership plus change management. So that's people and then technology. You need to have a visionary direction for where you want to go and the key is repeating it a million times. For change management, you have to form teams that are actually going to have some capacity to work on these interventions. The technology is the last piece. If you don't have an intentional strategy around change management -- and I don't mean 'buy-in' -- but actually set the table for people to have conversations about these ideas and actually help to tweak the idea and figure out the direction and evolve the work. The last step is technology. The most important piece of technology is project management and onboarding. The companies where it is working are spending about 50% of their time on that part. And that's why you're seeing a consulting boom. People think that predictive analytics are the thing you buy. It is not. Most of the time if you look at what GSU did, the vast majority of that is about human beings and technology has to serve them. In every case we should be choosing the technology we use based on where we are and our capacity so that means don't shove in a proactive advising technology when you have decentralized advising and they have their own boutique way of doing it in every space. That won't change behavior. It will be another system that people won't use.

*What is the one barrier for innovation and how do you overcome it?*

Too much infighting. Too much fiefdom. Too much versus mentality. It gives us the illusion of progress. All the infighting makes us feel very busy and productive, but it is a massive distraction to actually solving the problem. If I could do one thing, I would require everyone who wants to work in this space to take a course on the history of higher education finance. Because once you understand the pressures we are under, and are transparent about the challenges, there is no more us versus them. There is only one side. The faster we could do that and eliminate the unnecessary tension and infighting, the faster we can solve the problem

Higher education in the next 50 years will be a much more managed enterprise than we are now. We are serving millions more students than we were 50 years ago. When an enterprise grows that much, we need to wrestle with the challenges that come from that growth. Governance versus autonomy. Academic versus administration. You can't run an institution and get the results that society wants and deserves without being more intentionally managed. We're living that out now.

**Forum Advisory Group Discussion:**

*See Open Letter to the Minnesota State Board of Trustees*