

Forum on Reimagining Minnesota State Session 3: The Nature of Work: Changing Careers, Competencies, and Credentials in the Future

Session 3 Summary

Overview

Session 3: The Nature of Work considered the changing workforce of the future as the realities and opportunities of technology, automation, and globalization impact different industries and professions. Session 3 provided opportunities to discuss how organizations are approaching innovation and capacity building among their workforce in order to meet these changing skills and expectations.

Guiding Question:

How will Minnesota State reimagine program development and the creation of educational credentials that are more responsive to changing workforce dynamics and demands in order to position our students for immediate and ongoing career success? How will we reimagine our approach to employee development that prepares and supports them as they navigate this new landscape of learning?

Forum Participation

Approximately 70 people joined Session 2 live at St. Cloud State University and about 140 people joined via technology.

Briefing Paper Executive Summary

The world of work is changing rapidly and most agree the rate of change will only accelerate. Artificial intelligence and automation are creating what is being called the Fourth Industrial Revolution or the Digital Age. The widespread application and integration of technology and data into the workplace is predicted to have significant impacts on industries and careers, though the scale of the impact is still being debated.

One of the most significant changes to educational delivery is the growing expectation that a person will need to engage in ongoing professional education over the course of a career. In the emerging work environment, it will no longer be sufficient for an individual to complete all of their formal education at the beginning of their career. Ongoing formal and informal education will become a necessity in order to stay current with new technologies and industries, as will the need to engage in learning experiences that are short in duration, "just-in-time", and embedded into employment.

Responding to the changes brought about by technology and artificial intelligence, especially the need for individuals to reskill over the life of their career, is putting pressure on higher education institutions to develop new ways to validate learning. Alternative credentials are seen as one way for individuals to

provide clearer signals to employers about specific skills and to provide greater flexibility and customization by the individual learner.

The growth of alternative credentials has brought to the forefront the conversations about the need for more direct measures of student learning, competencies, and skills. These conversations have been fueled by the growing interest in competency-based education (CBE), prior learning assessment (PLA), and online and hybrid learning models as a way for non-traditional students to gain greater access to higher education.

Even as industries change and new technical capacities are identified, there is growing agreement that all graduates, regardless of credential, need an education that includes both liberal learning and practical skills. The both/and model that provides marketable skills and encourages intellectual resiliency and flexibility will be necessary in order to navigate the rate of change in American society and to enjoy a successful career and social and economic mobility over a lifetime. This will require a rethinking of how to infuse creativity, critical thinking, communication, problem solving, cultural competency, and entrepreneurialism across all educational experiences.

Responding to rapidly changing work environments will require an increase in the quality and frequency of connections between higher education institutions and industries and communities. Increasing the formal and informal bridges with industries and communities will create ongoing opportunities for innovation in both. Engaging employers in shaping the development of credentials allows for increased responsiveness to changing job skills, especially the need for technology-related education and the perceived 'skills gap' among employers. This also creates opportunities for colleges and universities to validate on-the-job learning and to develop more research-based understanding of professional skills and competencies in the future. In some future scenarios, colleges and universities will play the additional role of certifier of formal and informal learning experiences that align with career ladders that have been developed in partnership with industry.

Forum Session 3: Speaker Key Points

Chauncy Lennon, Vice President for the Future of Learning and Work, Lumina Foundation

Today's students are encountering a world that our post-secondary education institutions and systems were not designed to address. Our task is to create a new post-secondary system for a world that is being transformed by many forces. These include trade and globalization, technology, increasing labor market volatility, resource constraints, shifting skill requirements, rising costs, and the changing nature of employment and structure of work.

We use the term "The Future of Work" to describe this changing environment. We often speak as if every type of job is going to end up like advanced manufacturing. We have to recognize that when we talk about shifts, especially those caused by technology, we are likely to see variation. Variation by industry. Some will be dramatic and others less so and on a more gradual pace. Variation by firm size. Large firms will invest more. Smaller firms, even if they can afford to invest, may be less likely to adopt changes. And variation in the types of jobs that will be impacted by technology. Lumina is seeing a few key changes.

First, because of increasing demand for skills, we are moving toward a system where every individual will need to have a post-secondary credential of value. In the industrial economy, 2 out of 3 entry level jobs required only a high school diploma or less. Today 2 out of 3 jobs require at least some post-secondary training and that trend will continue. Fewer and fewer entry level jobs will be available to

people with just a high school diploma. Without education beyond high school, individuals are having a harder time getting what we call "good jobs" which are jobs that pay good wages without a BA. Good jobs are defined as earning a wage of \$35,000 up to age 35 and \$45,000 after age 45. People with associate degrees are capturing a large percentage of these jobs. Minnesota actually leads the nation in this trend. Workers with associate degrees increased their share of good jobs by 31 percentage points from 1991 to 2015.

The second point can sound contradictory. While everyone needs training post high school, it is not true that everyone needs to get a BA. There is data from Georgetown University that shows that in some cases associate degrees pay more than bachelor's degrees. This of course has a lot to do with the types of degrees people are getting. We're seeing a lot of individuals pursuing a bachelor's degree and not completing. People are taking this message about pursuing a post-secondary degree and seeing it only as a BA, and that is creating a different set of challenges.

A third point is that not everyone is a traditional student. The shifts we're seeing in the labor market and the larger economy mean that today's student are very different than what people often think. Many college students are over age 35 (about 40%). 60% are working while in school. About 25% are raising children. Today's college students are more diverse—both economically and by race and ethnicity. Nearly half are living at or below poverty, which is making financing education a huge concern. And we are seeing significant challenges with persistence and completion. 38% of students who are working are leaving school in their first year. Only 11% of students who are low income graduate in 6 years. 53% of students with children do not complete.

Lumina is committed to the goal of getting 60% of all adults in the US with a post-secondary credential. We frame it as an attainment gap. This would mean providing 87 million more people with a post-secondary credential. If we break that down, we would need 24.2 million more traditional students (ages of 16-24); 18.6 million more returning students or adults who have attended college but not obtained a degree or other credential; and 43.8 million more adults with no post-secondary education to complete credentials. If we want to build the talent we need to build our societies and economies, we need to be thinking about adult students much more than in the past.

Minnesota's attainment gap – 54% of adults have either a 2-yr degree or 4-yr degree. The state has an ambitious goal of 70% by 2025. So there's lots of work to be done. There are large numbers of adults who have a high school credential or some college and no degree. The system will need to engage these adults in more training because that is what the labor market will be demanding. We also focus on the attainment gap by race and ethnicity. The state has a significant Race and Ethnicity Attainment Gap: Hispanic Attainment: 23% (national avg. 21.9%); American Indian Attainment: 19.4% (national avg. 24%); African American Attainment: 29.1% (national avg. 30%); White Attainment: 52.4% (national avg. 46.4%); Asian Pacific Islanders Attainment: 53.7% (national avg. 61.7%).

Going forward a credential/course/major/program is going to matter more than if you simply have a degree. How do we make the case and share information with traditional and adult students that the different types of credentials they pursue will be valuable and will create opportunities for them in the labor market?

One noticeable trend is that there are more people pursuing 'non-degree' credentials, certifications, and licenses, but not a BA or an AA. We're seeing those proliferate across the US higher education system. For example, skill-builder students who are career and technical education students who are attending community colleges and taking 2-4 classes. They succeed at very high rates, but they rarely complete credentials and rarely transfer to 4 yr institutions. In Michigan these students account for 25% of new CTE students and account for about 10% of the overall student population. They tend be male and older.

They are likely to be found in engineering, construction, precision production, health care, and security and protective services. Few complete a credential, though 1 in 7 eventually transfer to a 4-yr institution. These students are experiencing a decline in wages prior to enrolling, but after they enroll in classes for a certificate or credential, their wages start to go up. Employers are signaling that there's value in certain classes, but you do not need to overinvest by completing the whole degree.

Lenoir College in South Carolina provides a new model of career preparation. Their Manufacturing Academy is a short, non-degree evening program supported by several companies in the area. Students finish the course in 13 weeks. The coursework doesn't necessarily come with a credential, but it provides the skill development employers are looking for and provides access to a smooth transition into work. They are responsive to local employers, open to all students who apply, and are stepping stones to full degree programs. Innovative colleges are finding ways in which this type of coursework will stack into credentials and eventually full degree programs. But there is much we don't know about these programs. We don't have a sense of how widespread they are. We don't know which students are best served by them. We don't know which careers they are best suited to. We don't know what makes for effective partnerships between employers and educators. And we don't yet know enough about how to make these actually stack. We use the phrase stackable but were just beginning to build the evidence base for what stack-ability looks like.

We can see that there is a growing trend of people with a BA or AA going back and getting certifications. Today 33 million Americans hold a job-related certification as their highest form of credential. Students are completing academic credentials and industry-professional credentials at the same time. There's lots of challenges. They can be costly for student to pursue. There is a lot of friction in the signaling between what employers value and what schools are providing, and it requires ongoing communication between industries and schools. This is a space where we are seeing a lot of activity from private, post-secondary education institutions. They are recognizing that employers are getting better at articulating the skills they need, and institutions are getting better at developing training for those types of demands. How well the public sector responds will be an important thing to keep in mind.

How is Lumina thinking about these challenges? We see credential and non-credential pathways as a way to engage non-traditional, adult students. We also believe we need to think about transparency. We're talking about how employers and colleges will work together. The world of credentials is a messy one. We have over 300,000 unique credentials in the US and that number is growing. How they are being described is variable. They are increasingly inefficient and expensive because they are out there, but it's not clear what they lead to. Lumina is investing a lot in creating frameworks that allow for greater awareness of credentials and what they're value is, creating greater standardization so we can compare apples to apples, and understanding how we partner with educators who are central to determining what you know if you have a credential.

Scaling begs the question of affordability. How do we get more people into credential pathways? The answer is to make them less expensive. Lumina has adopted the Rule of 10. This means that students should not have to pay more than families can reasonably save in 10 years. Students should not have to contribute more than 10% of their discretionary income to pay for college. And college affordability should allow a student to work 10 hours per week.

We see a growing trend in competency-based learning. Well-designed, high-quality competency-based programs – along with other innovative delivery models such as completion colleges and open-source online programs – can help students obtain high-quality postsecondary credentials. Traditional models focus on grading students. A competency-based path is not about grading but demonstrating you attained a certain skill level. We will see increasing innovations in this area, with a recognition that this is a model that is more a fit for adults.

Finally quality assurance – new and existing accreditors will play critical roles in ensuring clarity about what's being learned and the ability of students to build on academic credentials and find meaningful work, including among people with no recognized learning beyond high school. None of this works unless we can assure that all of this training is of high quality.

Terry Rhodes, Vice President, Office of Quality, Curriculum, and Assessment, Association of American Colleges and Universities

A recent Burning Tree Report discusses how technology is driving the emergence of the "hybrid economy." When we think about the impact of AI, we get worried about the artificial but need to focus more on the intelligence or the human element. How do humans interact and make meaning of the technology? This raises the key point about how we think about a lifelong trajectory of learning. Hybrid jobs are fast growing, high paying, and are hard to fill. They are more human and less automated and are less entry level. Entry-level is a dead end for many and an increasing number of occupations. If we do not think about how to create progressive educational pathways, hybrid economy jobs are not going to be available to an increasing number of individuals.

What are we not doing sufficiently well with? Liberal arts education. These are not soft skills. These are actually the hardest skills for people to master. It is a disservice to our students and industry to talk about them as soft. It communicates that they are easy. Frankly they are quite hard to do.

A recent AAC&U survey of chief academic officers found that 85% of institutions have a common set of intended learning outcomes for all students, meaning they are setting goals for what is important for all students to learn. And yet 9% of CAOs said that their students actually know what these learning outcomes are. We tend to focus on the accountability side of the equation because accreditors have pushed us to have outcomes and provide evidence of learning. This has come as a detriment to teaching and learning and the assessment of what students are actually learning.

A recent survey of employers (both senior executives and hiring and talent developers) asked about the importance of completing a college education. They overwhelming believe that completing a college degree is essential (82%); and they overwhelming believe it is worth the investment, both time and money (79%).

AAC&U doesn't focus on the topic of affordability, but one of the things we find with so many students, especially those populations that we need to bring into our fold, is that they are struggling with the financial component, as the cost of education has shifted to the individual and became a private good and not a public good. Higher education is a public good, and we ignore that at our own peril as a nation.

The majority of executives say it's difficult to find the folks that they want to hire. They don't have preparation in those skill areas needed for growth and development. What are they looking for? Things that cut across majors. Effective oral communication, critical thinking, ethical judgement, teamwork and independent work, motivation, effective writing, and experience in real world settings. They would like higher education to focus on these competencies because they are not equipped to provide them to their employees. Our employers are satisfied that our graduates are mostly prepared for entry level jobs. They are much less confidence that the students we are producing are prepared to move into advanced positions. It loops directly back to the set of learning outcomes that AAC&U focuses on.

Areas of focus such as signature work. Our students have an identity and a voice when they walk in the door. They bring things with them that we have to recognize. It is not about our students becoming us. It's about honoring what they bring with them. And it is increasingly essential. The single biggest factor in whether a student persists and completes a credential is if they feel like they fit. They have to feel like they are accepted and recognized as a person who has something of value to contribute. This impacts our work in equity and inclusion. We have to be able to provide this, not only for the students well positioned in their previous life, but for those students who are in challenging situations.

Another area of focus is in high impact practices. These practices are proven to be effective in developing higher order thinking and skill development. They require significant time on task, and engagement with and frequent feedback from faculty, other students and staff. Students should have these experiences when they come through the door and continue throughout their educational arch. The problem is that most of our students are not exposed to these types of practices during their educational experience.

We also asked CAOs if they tracked their students' performance. 70% of CAOs said they do. We asked them if they disaggregate that information, and only 17% said they do. We need to understand if patterns of learning are shared by all groups of students. We need assessments that actually verify learning achievement. This means reframing the teaching and learning narrative in a way where it's not about the grade at the end. It needs to be about the actual work of our students in order to understand learning. That is why AAC&U developed the VALUE rubrics in collaboration with 100s of faculty across the country. The VALUE rubrics focus on essential learning outcomes. They are developmental and are designed to show growth and learning over time. We have recently set up the VALUE Institute so that any institution can have student work scored on a set of nationally normed expectations and standards of achievement. This is creating a nationwide landscape of learning so we have a context for institutions to validate it nationally and within the context of what is happening locally. The VALUE Institute work has been based on a collaboration of institutions and states. To date, it has involved 140 institutions submitting 49,000 student work products for assessment by 400 faculty using the VALUE rubrics.

Throughout these conversations we are seeing changing patterns in how we deliver education. We are moving from credits tied to seat time to competency or proficiency tied to what a student can actual do. We are moving from a distinction between general education and the major to liberal learning embedded throughout to the entire educational pathway. We are moving from a focus on grades in a single course as the metric for learning to a look at the work students can do over time. We are moving from education as knowledge transmission to faculty as mentors in meaning-making and sense-making. We are moving from limited access to real projects to educational design that includes high impact practices for all and everywhere.

What have we learned from VALUE? Context is important – we need to understand learning in the broader context of our students' lives. Local data are important. Things happen locally between our student and our faculty. Data are needed to deconstruct at the local level so we know when students are falling through the cracks. Our work needs to be increasingly interdisciplinary and integrative. Finally, we know that what our educators do actually makes a difference. The assignments we give and what we ask students to do makes a real difference in what our students learn.

One final finding from our research. Innovation is a priority for employers. They report that the challenges their employees face today are more complex and require a broader skill set than in the past. Employers recognize that the capacities that cut across majors are as critical to a candidates potential for career success as the student's choice of undergraduate major. Employers recognize the importance of a liberal education. The majority agree that having both field-specific knowledge and a broad range of skills and knowledge is most important for long-term career success. Employers endorse education

practices that involve students in active, effortful work that requires the application of knowledge. And employers express interest in e-portfolios and partnerships with colleges to ensure college graduates' successful transition to the workplace.

Heidi Rai Kraemer, Senior Manager for Corporate Citizenship, IBM Corporation

We need to make a commitment to career readiness for all students. This is a goal we have not yet achieved in Minnesota. Achieving it will require us to breakdown existing rules and policies and rethink structures to make this goal possible.

P-Tech stands for Pathways in Technology Early College High school. It is a public-private partnership that originally involved the New York City Department of Education, the City University of New York, and IBM. These organizations are working collaboratively to give students an integrated pathway from high school through college and into industry. The goal of the program is that after 6 years, P-Tech students graduate with high school diploma and AA degree.

As technology like artificial intelligence evolves, it will change the nature of work and the jobs we do. Increasingly the jobs of the 21st century are neither blue collar or white collar but 'new collar' – these are jobs that require post-secondary training and credentialing but not necessarily in the traditional four-year college degree. Some of the technology industry's fastest growing fields are in these new collar fields – cloud computing, digital design, cyber-security, and AI development. Within the next 6 years, it is estimated that the US economy will create 16 million new collar jobs. During that period, jobs requiring a high school diploma will continue to disappear. In 2008 to 2016 alone, nearly 7 million of these lower skilled jobs vanished forever. But even as post-secondary credentials are becoming more important to acquiring good paying jobs, only 9% of students from the lowest income level have earned a college degree, and that percent has barely changed in 40 yrs.

The purpose of P-Tech is to build the talent for new collar jobs and was designed to break the cycle of poverty and address the skills gap by linking education and workforce development. The goal of P-Tech is to prepare young people for academic achievement and economic opportunity regardless of their backgrounds. The model supports public education and extends high school education from 4 to 6 years. When students graduate they have both a high school diploma and an industry recognized associate degree. Upon graduation they can continue their education or move directly into industry.

The key tenants of the P-Tech model:

- Partnership between school district, higher education, and industry
- Six-year model, integrating high school and college coursework, linked to industry skills map
- Workplace learning strand, including mentoring, worksite visits, speakers, project days, skillsbased and paid internships
- Open enrollment with focus on historically underserved students
- Cost-free postsecondary degree
- First-in-line for jobs with industry partners

Employers are full partners and are committed to these tenants. They engage in a skills mapping process that identifies skills required for key jobs. Once identified, the skills are mapped, leveraging the expertise of the two education partners to create a seamless six-year curriculum. For young people, the mentoring plays a key role. Paid internships are also turning points for many students because they are integrated into teams that hone the professional skills that are necessary for success. P-Tech is in 110 schools in 8 states and 3 countries. Further replication is underway in 2 states and 5 countries. P-Tech involves 70 community college partners and 550 committed business partners.

Early results are promising. To date, there are 185 graduates, some of which have completed the 6-year program in as few as 3.5 years. The graduation rate for the AA degree in computer information systems or electro-mechanical engineering technology is more than 4 times the national on-time community college graduation rate and 5 times the rate for low income students. No P-Tech student has taken a remedial education course. That's compared to the roughly 50% of students entering community colleges who take at least one. Our goal is to see alternative pathways available to students across all 50 states in urban and rural areas, while adding more education and industry partners.

How do you get to a partnership that is long-term, sustainable and effects generations? Business and education need to listen and learn each other's language and each other's unique expertise. With this understanding comes the ability to know when to lead and when to follow. This builds the basis of trust and that trust becomes the basis for doing very hard work. Business and education have to ask the tough questions of each other that may require each other to change, whether policies or deeply entrenched practices. This is not giving at the margins. States are recognizing that high school can be grades 9-14, and they are extending per pupil funding to ensure P-Tech is a cost free degree for students. Similarly businesses are making significant contributions, including meaningful internships. Finally, education-industry partners must have a structured plan for implementation with clear roles and responsibilities with a commitment to share outcomes so we can improve.

Panel Discussion

The innovations described require partnership with faculty. How do we develop positive relationships with our faculty and engage them in this work?

Start the conversations with the work that students are already doing. When you start with students and what our students are expected to do, that can change the conversation. The vast majority of educators are there because they want to help students. The whole notion of faculty buy-in is not an issue when you can get faculty to look at the actual work of students in a non-threatening, non-blaming environment. Bring others into the conversation to help our faculty learn about those areas they have not been trained to do. When these things happen, we know that buy-in increases and student learning improves. The big goal of cleaning up the world of credentials starts with faculty. It begins from understanding what someone is supposed to know from participating in a course or set of courses — that has to begin with faculty and is essential to addressing this challenge. Faculty are key to the triad of P-Tech and understanding where is the right location for that learning in the curriculum.

What are the best practices to addressing the "how" to do this work?

This depends on who we are talking about. Supporting adult students involve thinking about when students enroll. The balance is between remediation and getting students on a guided pathway from the start so there's a sense of progress – so they see their north star for why they are enrolling in college. There's a lot of work to be done around supports. When we think of the adults who are some college and no degree, we know that a non-trivial portion of them are there because they have non-academic issues, like \$500 in parking tickets. We need to work with our data folks to understand the different kinds of issues our students have so we can fix our operational problems. We can't fix them until we understand what the barriers are and what's needed to help different populations succeed. For a long time, we've lumped them together into big categories that have made addressing operational challenges difficult.

P-Tech uses four different funding models. Some states are legislating per pupil funding or concurrent education funding. Some states are providing appropriation. Some have inventoried other opportunities like Pell to support the final two years to ensure that it is free to students.

For the most part, we have set up all of these policies and processes ourselves, and we can change them. Systems can have a huge effect on what can happen to our students. And it's not dictating what

will happen, but it is in creating the environment and opportunities for campuses and faculty to indeed innovate. It's not the next shiny thing. It's not disrupting what we're doing. The governing board in Texas said "these are the kinds of learning we need for our students" and then let the faculty figure it out within the bounds of what the legislature put in place. Massachusetts is doing something similar at the public level. There is so much at the system level that you can leverage, but it can't be you deciding how to do it but instead how do you engage your faculty and campuses. Honor the work of faculty and make sure it gets recognized in ways that matter.

If high impact practices and the accumulation of them are the most valuable, how come assessments of learning are based on seat time and transcripts reflect the same?

These are changes that will happen on many fronts. Assessment is one of them. New technologies will allow us to assess in new ways and in ways that are more aligned with this concept of understanding what it is someone has learned, what competencies have been developed, and how we might translate those over to the labor market side. But it is in its early days. Minnesota could be a leader in what this next generation of assessment should look like.

Does P-Tech provide a recognized credential?

The credentials must comply with the standards as described by the state and academic institutions and programs that confer the credentials.

The notion of the credential is changing. Stanford is hearing from employers that they still don't know what students can do. So they now have their transcripts linked to a digital portfolio where students can link their work with what is on their transcript so they can demonstrate what they can do.

If employers give such high marks to professional skills why are students abandoning English and history?

Part of it is on us as educators in how we teach those fields, and how we make them more engaging. Part of it is that they are realistically looking at the job they are going to get. But we know that it's not about the major. It's not an either or choice. It's about the skills and abilities they develop through their education. If we don't have the advanced skills developed through a liberal arts education in every credential in some way or another, that nice paycheck they get right out of college will be the paycheck they continue to get. We have to move from preparing for the career of a lifetime to preparing our students for a lifetime of careers.

In P-Tech, the workplace experiences are so critical. We tell students we need you to be good team members. We need you to be adaptable. We need you to be analytical thinkers. When they work with business partners, they see it in action.

Employers are not great at telling us what they want. You've got to look past what they tell you and to the data. Here's where the lack of transparency about credentials and what pathways they put you on creates all sorts of distortions and leads to sub-optimal choices because it's hard to see that the route to traditional liberal arts majors is actually a route toward higher paying jobs. The cost is higher relative to shorter credentials. People will default to a faster, less expensive credential. The reality is that we have to look at it not as a one and only path but across a set of opportunities. We need to give students more information. There's a risk and leverage question to ask. I can spend more time in school getting a more advanced degree but that may allow me to do things over time, rather than a short term degree in specific fields. But it is all guesswork at this point because we're not providing a full universe of information for people to make those choices.

Forum Session 3: Forum Advisory Group Discussion:

Reimagining should provide an opportunity to communicate a unifying, aspirational goal for the system. What is our promise to our people and our communities? It should provide a directional function for the people in the system. For example, the system might consider something like-"By 2025, Minnesota State will best in the country in...." The system needs a mission statement for what the work is. What is the broad goal for Minnesota and the role of the system in achieving that goal? What are the metrics that will show you have achieved it? The focus should be on outcomes and impact. It needs to be constructed so faculty and staff see themselves in it.

We need to be careful to not perpetuate negative impressions or stereotypes. Reimagining should be about lifting individuals and communities, so for example, don't perpetuate the perception of the urban and rural divide. It comes across in the language we use. We might have one definition but others have another. Mobility can have a negative connotation. Lifting and future prosperity are the important concepts and could be a unifying principle. The student population is changing, and they live within the context of family and community. Minnesota State partners with communities to build their next future.

The student are at the center of everything – quality of the product, affordability, and cost and access. Do the three things really well, and we will achieve the goal of Reimagining. The question is "What do we do and how do we do it?"

Have we disaggregated the information to understand the 'why' of different student behaviors? Can the system investigate more fully the ideas shared around "fit." We've heard that students drop out for two reasons – financial and fit. What do we know about these two issues within Minnesota State? Through Reimagining, how can we build a sense of belonging with a sense of purpose for all students – while at the same time do it at scale. How can the system deliver to the student the fact that "I have access to 130,000 different options but I can customize it for me." Could we create a cohort at the front end for all students and provide ways for them to be connected to each other?

The system will need to manage the tension between scale and personalization. How might you leverage technology to create virtual communities? The system will need to understand what can be done at scale and what needs to remain local.

Some questions Minnesota State will need to wrestle with as part of Reimagining: What is it about our current infrastructure that isn't working? What should be the relationship between Minnesota State and the world of work? How do we make decisions? How do we use data to support our decisions? How do we expect our people to be strategic? Are they empowered the way they should be? Does the system have a common culture? What do we already do better than anyone else?

Minnesota State is very complex and students and partners do not know how to access the full resources of the system. This highlights the need for navigators within the system. This might help people see pathways and see why it is worth engaging with Minnesota State – to help them see why and how to engage. If there is too much choice, it is hard for individuals to navigate. Too much choice is disastrous. How do we rethink counseling to minimize the complexity and help people choose? Could we articulate counseling as a main theme – a counseling rich system – connected to each other. The navigation would put the student at the center and provide clear direction for how to serve them downstream (connecting what they've already done) and upstream (plans for education down the road). Could we consider an e-portfolio based with a curriculum and requires the students to do the work before the navigation to give the student their own voice and agency in the navigation?

Can we better understand the different purposes for which students come to the institution. Not everyone is coming for a degree – so why is degree completion the only marker of student success?

Is Reimagining attempting to bite off too much? You will need to develop capacities in design thinking and agile development. You can't bake the whole thing in advance. You will need the ability to try a few things, assess the change and reflect on what worked and what didn't and then continually iterate. Pace is key. Fail fast and change.

Possible themes:

- 1. Student-centered focus System advocates for the student
- 2. Scale up our operations Bring evidence-based practices to scale across the system
- 3. Personalize and individualize the experience of the student
- 4. End-to-end systems integration
- 5. Stronger and more vibrant economies for Minnesota
- 6. Age-integrated learning campuses