Some educational technologies and innovations emerge quickly, and they persist. Others gradually develop over time. Still others arise—only to soon fade away. The higher education leader must navigate educational technology and innovation in such a context, cultivating the discernment to make wise decisions that set the institution up for success.
Yet there is a common fear (and sometimes reality) that I hear about when speaking with higher education leaders. We see a promising possibility. We identify a new innovation or technology. We begin the effort of moving toward it, seeking ways to apply it. When we get there, however, something has changed. Something new is now on the horizon, or what had excited us turns out to be outdated, obsolete, or far less of a panacea than we had first thought.

In such a context, the skill of discernment has never been more important. How do we determine where the education innovation puck is going to be? The challenge is further complicated by the fact that pucks on the ice and their metaphorical equivalents in higher education do not just move once or twice. They are in constant motion.

In a world of unceasing technological change, there is a genuine risk of investing significant time, effort, and money on new technologies and innovations that are unlikely to still be around in three, five, or ten years. Sometimes we move forward with the investment anyway. Although we know that something new will come along, we consider the new technology to be worth the present-day benefits. In other instances, a strategic investment in the wrong area can cause serious problems for a learning organization. There is the money spent. There is the decrease in trust and support from people within the institution, making things that much more difficult when we need to rally around the next change. There is also the lost time and effort, which could have been spent on other, more promising changes and possibilities.

While I do not offer a certain solution to these challenges, I will suggest here four tools for functioning in such an environment while leaning into the future. The first is mission sifting, a concept that helps us avoid chasing after every new, shiny educational trend, technology, or innovation. The second is transitional technologies, an idea that (again) will not solve the problem but does offer helpful context. The third is predicting the future: I will provide a brief orientation to how we can become more effective at understanding the capricious nature of educational innovations—a sort of crash course in futures studies. The last tool consists of options for approaching the future: I will offer yet another way of thinking about and preparing for the future of our higher education institutions. These four tools will not remove the risk, the fear, or the uncertainty; but they can be helpful in better equipping us to manage and thrive in such a fluid context.

**Mission Sifting**

Over a decade ago, I began my study of innovative learning organizations and their leaders. By the time my initial exploration concluded, I had documented over one hundred organizations and eventually had conducted close to one thousand formal and informal interviews. From that work, I noticed ten persistent traits of the leaders in these organizations; one of those traits relates directly to the focus of this article. These leaders consistently identified what I call **missional sifters**: core ideals, practices, values, or philosophies that served as sifters for new possibilities. The leaders did not have long lists of ideals—usually only one to three that a leader held in high regard. Yet no matter how promising the practice or innovation, it had to be sifted by these core ideals.

We use sifters to make sure that we keep the “good stuff” and let the other stuff pass through. The key is to be very clear about the unavoidable, undeniable, institution-shaping ideals and values. They should be specific enough to guide each decision. They should be used as sifters of programs, projects, ideas, policies, and practices. They protect us from simply adding something because that is our image of our institution or because someone wants it. They protect us from chasing after every new and shiny educational innovation. Such institution-shaping ideals are what allow a learning organization to have a distinctive identity and to progress toward being a high-impact learning community. However, for a sifter to work, we must use it constantly and relentlessly. When it comes to this tool, the most effective leaders remain tough-minded and do not make exceptions.

Mission sifting allows us to set some priorities for our higher education institutions. It is not about closing ourselves off to new possibilities. It is about grounding ourselves in our core identity. Each college or university will have its own distinct, institution-shaping ideals and values, and that is part of what helps to create a rich, diverse higher education ecosystem. It also equips us to more effectively navigate the modern context.

I offer one word of caution with this first tool. I have seen people take this...
concept and use it to entirely dismiss and disregard new ideas, sometimes too quickly. That is unfortunate, since exploring and understanding new innovations and possibilities requires time. Until we take the time to explore, we are usually not informed enough to determine whether an idea aligns with what we most value. So even though effective leaders of innovative organizations use mission sifters, that does not keep them from learning about and widely exploring the breadth of possibilities.

**Transitional Technologies**

Some educational innovations and technologies find their way into learning organizations and establish themselves for decades with limited fundamental changes. Others seem to come and go in a shorter time period, sometimes as quickly as a year or two but more often in five to ten years. Then there is a third and important category that I call transitional technologies. These are technologies that arrive, make an impact, and then morph into something quite different over time. I further define a transitional technology as having the following traits:

- It helps expand people's thinking beyond an existing, related, but increasingly too limiting technology. As such, it helps surface the downsides and limitations of that technology, expanding the community and conversation around the alternative.
- It borrows from the existing metaphors and vocabulary enough that people can understand it, while adding new features and taking advantage of new and emerging technologies. In fact, it is always sparked by the affordances of multiple new technological developments.
- It triggers experimentation and entrepreneurial endeavors that promote further innovation and refinement.
- People understand the transitional technology in terms of what came before it. Many early experiments remain limited to the metaphors and frameworks that informed practices with the preceding technology. While there are some who will experiment in fascinating ways, demonstrating entirely new applications not possible with the previous technology, most people see the transitional technology as a supplement to or a replacement for the prior technology, missing the fact that it could actually lead to a completely different construct—one that nevertheless works largely within the established culture, beliefs, values, and norms that emerged from the preceding technology.
- Its most important role is not to be a long-term replacement for its predecessor but to aid in progress toward what is usually a completely new mental and cultural construct and associated technologies. In this sense (and drawing from a well-known Buddhist metaphor), it is the raft that gets us across the river, but that raft is left behind as we move on to the next part of the journey.

We can use the tool of transitional technologies to recognize larger changes that are soon to arrive. Consider the rather new development of digital badges. They are often described as digital credentials. What is the purpose of a credential? There are multiple purposes, but a credential generally signifies something: experience, accomplishment, traits, competence, relative growth (or the lack thereof), and much more. As such, credentials communicate something about a person. Over time, they even communicate more or less than the reason for their issuance might warrant. Some more accurately and persistently communicate something true about a person, group, or organization. Some do not. That has always been the case, just as it is with badges. Badges are sentences in the stories that we tell, and we all know that some stories are fiction while others are nonfiction. Most are a blend of the two.

Yet badges are only one of many devices useful in communicating a story to others. What is important is the story—and the connection with people as a result of the story. That is where data science and artificial intelligence (AI) come into play. As more integrated and easy-to-consume methods of connecting and communicating develop, badges and other credentials will begin to play a smaller role. That is not to say that they will disappear, but they will eventually become a support for the primary focus: connecting people with one another and with organizations through meaningful data.

Badges represent a set of fascinating technologies, and they certainly expand and deepen our thinking about recognition. They have served us well in that sense and will continue to do so for some time. Yet sooner than later, we will find that they have taken us as far as they are able in this journey, and we will set them aside for our larger and far more significant journey toward open recognition and what I expect will be a transparent but useful ecosystem of algorithmic and data-informed connections. That will bring (indeed, has already brought) ample ethical challenges that we are wise
Predicting the Future

Every January we see numerous articles about the five trends to watch or the ten technologies that will dominate in the new year. Some of these are drawn from careful study and consideration. Others are simple speculation. However, they capture our interest because educational leaders see the importance of looking ahead and preparing for the future.

It often seems that the world of blended learning, online learning, augmented reality, virtual reality, learning analytics, adaptive learning, and a dozen other developments happened overnight. But educational trends develop over years, decades, or even longer. There are signs of the impending changes for a long time, and anyone with the desire and commitment can learn to read the signs and “predict the future”—an invaluable tool.

I have been reading these signs for almost two decades, long enough to learn from many errors and to refine how I approach the task. Having a feel for key factors allows seeing educational technologies and innovations develop from a distance. It is not always easy to predict when the innovation is going to reach a critical mass and spread more quickly. I admit to being off as much as a decade in some cases. Yet we can usually do better than a decade, and we can use this skill to prepare ourselves and our institutions for what is coming. The following fifteen factors are valuable for studying the trends likely to shape and change higher education over time.

Domain Jumping. Many promising ideas in higher education do not start in higher education. They begin in entertainment, in the business sector, in health care, or in dozens of other domains. When there is an impactful development in one of these domains, it will eventually influence broader cultures and find its way into education. We can’t always trace the direct moment at which an idea jumps from one domain to another, but by looking at innovations more broadly, we can notice patterns that hint at a future jump.

Level Jumping. Too often, we focus on our small and local world of higher education. We don’t look across early childhood, elementary, secondary, tertiary, workforce, continuing, informal, and other forms of education. As a result, we will miss a major development in one area that will likely jump to another level.

Convergence. We also should look for the mixing of ideas, within and outside of higher education. This is where two or more seemingly disconnected and distinct ideas come together, which is largely what happened with blended learning. Online learning started first. People basically imitated what they were doing in the classroom but in an online environment. Soon they discovered distinct online benefits not possible in face-to-face. Then came video-sharing technologies. These converged with face-to-face teaching to create what we today call blended learning. By exploring what it might look like if various developments were to combine, we can help predict the future.

Technology Maturity. In their infancy, most technologies are not quite as impressive as they will be in a decade or two . . . or three. As new features are added, we begin to discover new possibilities. As their ease of use or affordability increases, these technologies mature into ones that have greater applications and possibilities in higher education.

Changing Metaphors. I strongly recommend a wonderful little book called Metaphors We Live By (1980), by George Lakoff and Mark Johnson. In it, the authors point out the power of a metaphor to change how we think, how we make decisions, and the possibilities that we consider. By noticing the growth of a new metaphor in a culture or community, we can identify a forthcoming innovation or set of innovations.

Amplifying Technology. Some technologies amplify beliefs, values, and philosophies. When one of those amplifying technologies emerges, it will give greater power to one philosophy or set of values over another. We can use this development to predict which trends will win over others. We can also take advantage of this development by finding and
Four Tools for Leaning into the Future in Times of Rapid Change and Innovation

Promoting those technologies that best amplify the values and philosophies we support.

Funding Growth. Investors, foundations, and government grants can and do help create the direction of future trends. Money is not the only factor, but significant and persistent investment in an innovation is certainly an important factor to consider.

Revenue Potential. Revenue-generation potential will give an educational technology an extra boost. Textbooks didn’t grow as a dominant curricular resource for a century simply because they were the best means of teaching and learning. They did so because they met a need while also creating lots of money for people and organizations.

Simplicity. Easy-to-understand, concrete, or simple innovations generally gain more traction in higher education than complex ones. This is true even when the complex solution is better for students and institutions.

Media Attention. The media doesn’t typically create educational innovations, but media attention can and does influence awareness and adoption rate. We saw this with Massive Open Online Courses (MOOCs)—an innovation that continues to grow to this day even though it no longer gets the frequent media headlines. With the stories and attention around these developments and key higher education leaders and corporate players, MOOCs gained traction rather quickly. This is not a factor that lets us track trends far away, but we can use it to identify developments one to three years away and even a bit further out.

Superior but Muzzled. Occasionally great innovations, models, and ideas clash with the agenda of those in power. People ignore or muzzle the innovation to keep their influence. Sometimes this is enough to kill an idea altogether, but it usually reappears in another time and place, seeking fertile soil to grow and spread. This is why we can’t always predict which organizations will take the lead on a new development. Some try it out early on but don’t have the

culture and support to expand. Then a new organization is created and accomplishes much of the earlier vision.

Superior but Isolated. Incredible work is happening within small pockets in higher education, and most people don’t even know about it. The work is serving a small group in amazing ways, but there is currently no drive to expand it or resources to grow it, or others have not yet learned about it. We should keep an eye on this type of work, which eventually can and often does experience massive expansion.

Kairos. Kairos is the Greek word for the “due season” or the “opportunity time.” This is when a series of cultural and other conditions come together to create an ideal time for a given idea, trend, or innovation. Think of kairos as similar to the idea of the “perfect storm.” If we follow innovations in view of larger cultural developments and trends, we can sometimes see the emergence of a forthcoming kairos.

Policy Change. Policies can kill or can give life to higher education trends and innovations. We should watch the patterns of debate and lobbying around educational policies to get a sense of which trends are more or less likely to grow and spread.

Compounding Interest. Significant growth on a smaller scale should not be downplayed or disregarded. An innovation might increase its impact or reach by 500 percent, but it was so small to start with that the growth doesn’t seem like much compared with larger efforts. Yet the law of compounding interest can apply to trend and innovation development as well as finances. Some innovations don’t lend themselves to scale, and that is important to note. But with time and attention, we can uncover which innovations can scale and experience compounding effects.

 Plenty of other factors can help in discovering growth in educational trends and innovations, but careful and collective attention to these fifteen will provide a good sense of what will and will not stick, develop, and expand over the upcoming years and decades, eventually becoming mainstream and widespread. This can allow higher education leaders to challenge trends they may consider dangerous as they approach the future.

Options for Approaching the Future

Finally we come to our last tool: various options for approaching the future of higher education. We can ignore the future, arguing that it is out of reach and that there is plenty to focus on in the present. We can prepare ourselves for the future—by being agile, alert, and responsive to subtle and significant changes and trends and by doing what it takes to

There is no rule against embracing more than one of these options, and in fact, there is much wisdom in taking lessons from all of these to fashion a combined view of the future.
position ourselves for the unknown. We can work to predict the future; although this is not a certain science, as noted above there are ways to notice trends and develop a nuanced ability to track what is likely to shape the future of higher education. We can also go further and aspire to create the future. Lastly, there is no rule against embracing more than one of these options, and in fact, there is much wisdom in taking lessons from all of these to fashion a combined view of the future.

**Ignore**
Maybe ignore is not the right word, but there is something to be said for not obsessing about the future. People can become so worried about or focused on what might happen in the future that they are unable to invest in the present. In that sense, there is a time to set aside our thinking about the future and instead deal with the important tasks of today. By investing in today, we might be better situating ourselves for the future. Mother Theresa was quoted as saying: “Yesterday is gone. Tomorrow has not yet come. We have only today. Let us begin.” Of course, there is a limit to this option. Completely ignoring all signs of change in the near future can be detrimental.

**Prepare**
Those in the “prepare” camp are sometimes skeptical about predicting the future. At the same time, those in this camp also believe that ignoring the future is unwise. Instead, their goal is to figure out how to best prepare for the future. This sort of mindset is essential in higher education. We are preparing students for a future that doesn’t yet exist. We thus have to find ways to prepare for the unknown. As Malcolm X wrote: “Education is our passport to the future, for tomorrow belongs to the people who prepare for it today.” Or as Franklin D. Roosevelt put it: “We cannot always build the future for our youth, but we can build our youth for the future.”

**Predict**
As I noted in the previous section, the future might seem to sneak up on us unexpectedly, but it rarely happens in an instant. With attention and study, we can notice the signs of change. A good place to start is with the past. The past might or might not repeat itself, but studying the past can give us a better sense of the changes to come. As George Savile, Marquis of Halifax, wrote: “The best qualification of a prophet is to have a good memory.” Or consider this quote from an unknown source, “A good forecaster is not smarter than everyone else; he (she) merely has his ignorance better organized.” If we can see patterns in what seems like randomness to others, we can often make sense of the past for the future.

**Create**
Abraham Lincoln allegedly said: “The best way to predict your future is to create it.” The future is not some distant, disconnected, and abstract thing. Each of us has a role in making it happen. Even small actions can have a ripple effect on future lives, organizations, communities, and more. I’m especially fond of how Buckminster Fuller put it: “You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.” The models, metaphors, and ideas that we create or promote help shape the future. Having been involved with tracking trends in education for over twenty years, I am confident that we can do this to a degree that is helpful, but we must also do so with a healthy dose of both humility and skepticism about our own predictions.

**A Combined View**
Instead of selecting just one of these options for approaching the future, we can choose to be both an idealist and a realist. We can choose to learn from all of these options, seeing them more as complementary than as competitive or discrete. There are times when it is best to focus on the present and ignore distracting thoughts of the future. There is also wisdom in doing what we can to prepare ourselves for the future, even if it is unknown. At the same time, we can do the hard work of studying the past and present trends so that we are more informed and better able to predict possible futures. Yet we do not have to be fatalistic: we have a role to play to help create the future. Perhaps the best way to approach the future is to take a combined view of all four options.

**Conclusion**
How do we navigate higher education leadership in an era of such rapid technological change, experimentation, and innovation? How do we decide where to invest our time, effort, and money to best set up our institutions for success? We use the tools we have. We ground ourselves in the core ideals of our institution’s mission, vision, and values—learning to be persistent and relentless in missional sifting. We refine our ability to identify transitional technologies and their indications of what is likely to emerge next. We demystify futures studies, recognizing that we can cultivate the skill of predicting the future: which trends are likely to fade, or persist, or expand. Lastly, we recognize that we have several options for approaching the future: we can focus on the present while also preparing for and predicting the future. And we can be active agents in creating that future not only for our own institutions but for the larger higher education ecosystem.

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