

# Innovation at the Intersection of Technology and Teaching





*From its beginnings decades ago as a small community college, Boise State University has recently achieved status as a doctoral research university and is recognized for rising enrollment, retention, and graduation rates. Director of Learning Technology Solutions Leif Nelson shares practical experience with managing change and promoting buy-in, as well as thoughts about where innovative teaching and technology will intersect in higher education.*

In the report you'll learn:

- Foundational theories and models of innovation, including how to apply tools and processes that promote innovation in education
- Thought-provoking ideas about the purpose of higher ed and how and why we innovate
- Practical examples from Boise State University rolling out new technologies and processes



Considering how inconvenient and unpredictable it is, why do we innovate? [Simon Sinek's popular Ted Talk](#) would have us start with this question. Instead, let's approach this in reverse and examine the 'what' of innovation, specifically around implications for us as educators and in higher education overall.

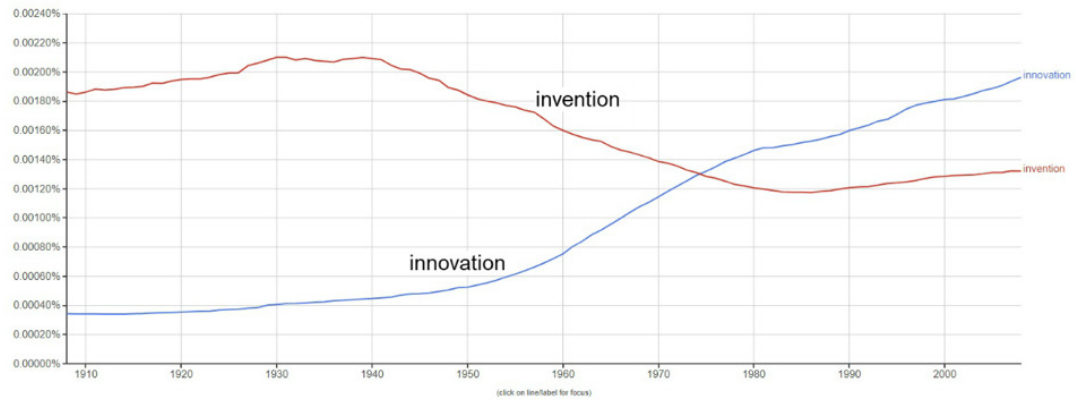
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## The 'what' of innovation

Originally from the Latin noun *innovare* meaning "to renew or change," the modern usage of innovation was born around 1540. Up until the 1800s the word was a pejorative term for political dissidents. On the heels of the industrial revolution, economists began to apply the definition we think of today, referring to a new or different idea, a creative improvement, or change for the better.

In the 19th century [French archaeologist Antwon Quincy](#) compared innovation to invention, declaring invention the superior activity since it involves creating something entirely new. In comparison, innovation at most improves upon an existing idea, and at least is only "change for change's sake." Other economists of the time disagreed, leaning toward favoring innovation as a standalone activity, pointing out that invention is often overdone and doesn't necessarily create anything of value.

Thanks to mid-20th century economic and sociological theorists, usage of the word 'innovation' began to soar in the popular lexicon, while 'invention' declined. In [Innovation Contested: The Idea of Innovation Over the Centuries, Benoît Godin](#) attributes the phenomenon as a change in social construct, seeing innovation as progressive instead of subversive: "The novelty (the innovation!) of the twentieth century was to enrich the idea of innovation with thought, dreams and imagination. Innovation took on a positive meaning that had been missing until then and becomes an obsession."



This [Google Ngram Viewer graph](#) shows the change in popularity of the terms 'invention' and 'innovation' from 1908 to 2008.

## The 'how' of innovation

So how does innovation catch on? I would argue that it's a combination of everything - the products themselves, characteristics of people and organizations, and also the bigger social cycles at play.

From his research on how farmers try new ways of planting and harvesting, sociologist Everett Rogers noticed patterns in rates of adoption, classified in his well-known [theory](#) that labels the rate at which people accept innovation, from early adopters to laggards. A few decades later, Geoffrey Moore proposed that adoption has [more to do with sales and marketing](#) than it does with the quality of a product or how long it's on the market.

According to Rogers and Moore, there is some common ground between the attributes that make innovation successful, such as the need for experimentation.

## How innovation works - attributes of product success

### Everett Rogers (1962)

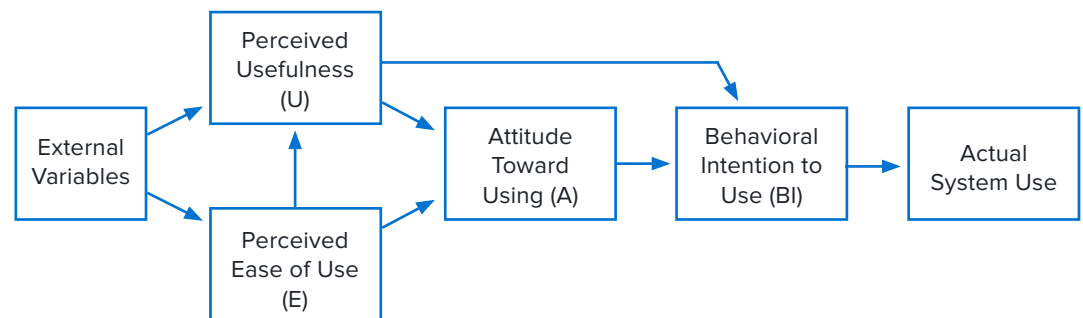
- Trialability (pilot/experiment)
- Compatibility (with current beliefs)
- Relative advantage (What's in it for me?)
- Complexity (should be simple)
- Observability (prove it!)

### Geoffrey Moore (1991)

- Target niche markets (allow for experimentation)
- Target archetypal consumers (what do they want?)
- Whole-product marketing (from desire to reality)
- Create the competition (We're better than \_\_)
- Secure the right channels (for sales/distribution)



Both perspectives emphasize the human aspect of change. What do people want? How will they benefit from this? What is the perceived value, and how do we prove it? This focus on the people-side of adoption is similar to the [technology acceptance model \(TAM\)](#), which is the basis for survey instruments we use at Boise State University for our own needs analysis and pilots.



*The technology acceptance model (Davis, 1989) theorizes what leads people to accept new tech.*

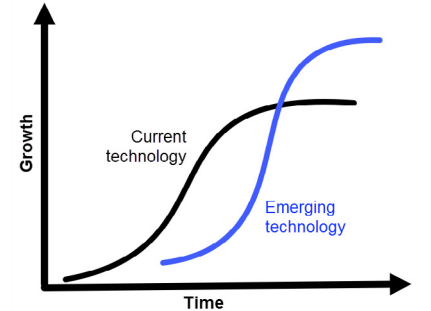
What are the broader structures that influence an institution to decide to change or adopt new innovations? According to Rogers as well as sociologists [Dimaggaio and Powell](#), people decide to use new innovation either by choice, collectively (because everyone else is learning it), or because an authority makes them adopt it.

Another good way to think of this is the level of freedom or agency people have in making decisions. The highest level of freedom is that you choose based on evidence. In other words, ‘it worked for someone else, therefore we’re going to try it ourselves.’ The second level is a moderate amount of freedom. It’s similar to doing ‘the wave’ at a football stadium - everyone else is doing it, you might as well! The least amount of individual or collective decision-making is that someone in power says you must change.

## Types of innovation

Going back as early as 1903, Gabriel Tarde brought us the [first s-curve model](#) showing innovative change and how new technologies can disrupt incumbent products. In the late sixties Thomas Robertson came up with the concept of continuous versus discontinuous innovation.

In their wake, Clayton M. Christensen popularized the idea of [disruptive innovation](#) - innovation that is revolutionary enough to create a new market and disrupt old ways of doing things (and a model that is ironically derivative of theorists who came before him).



*Tarde's famous s-curve model (1903)*

### Finding worthwhile innovation

There are a lot of great organizations that curate lists of new technologies, including Educause, EdSurge, and Campus Technology, both online and in print. Another good way to find the best technologies is to establish a network - get out there and communicate with people, or even connect on social media, if that works for you. Attend conferences and talk with administrators in roles like yours as well as in adjacent fields. When you see what's trending, new ideas often emerge.

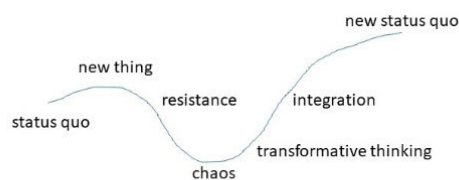


## Innovation is difficult, yet still in style

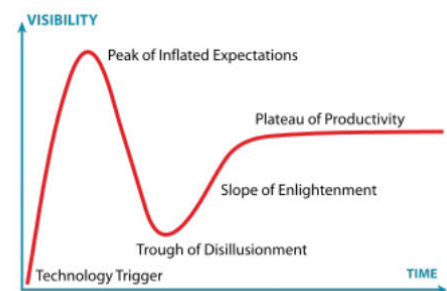
While this is true in theory, as people we often struggle to accept disruptive change. So how are innovations adopted? In order to accept change, we need to have a good understanding of what the change is, and why we're making the effort. Even then, change is best in small doses - constant change or change that is too drastic can be a tough sell.

People are creatures of habit. The tendency is to fortify what is familiar to us. Sometimes we're just resistant to change. So how do we get past that? We can mine insights from fields as diverse as family therapy to market analysis. Looking at [Virginia Satir's change management model](#) and the well-known [Gartner Group hype cycle](#), we can see that change comes with reconciliation. Although there is often initial optimism surrounding new things or change, usually there's a process of acceptance where you have to dip down into the chaos stage. According to the hype cycle, this is called the trough of disillusionment.

Satir's change management cycle



Gartner's hype cycle

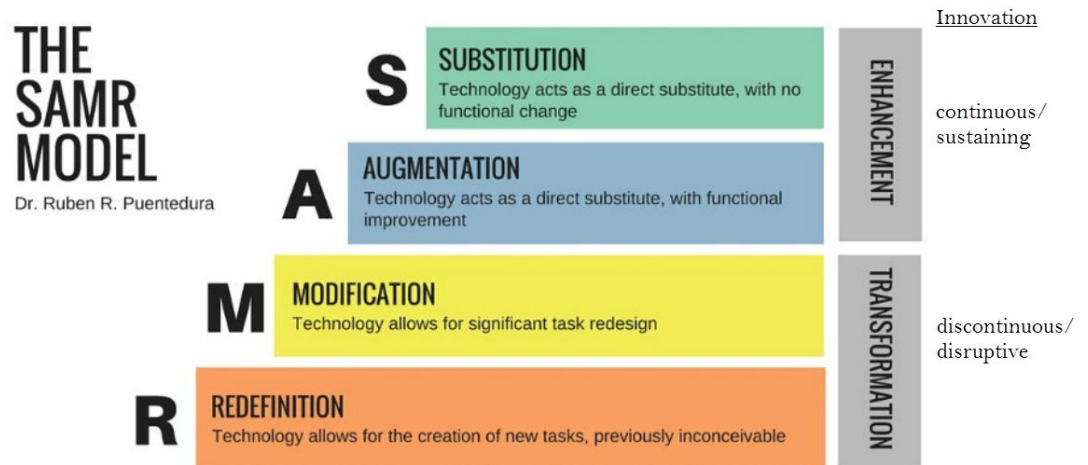


### Does innovation have to be disruptive?

Not necessarily; there are different models. If you look at Robertson or even Christiansen, they talk about some types of disruption being continuous or incremental. Disruptive is just one way to think about how something we have been doing previously, some tradition we're holding onto, some habit or process that's really engrained, could be really shaken up by a new way of thinking about it, or a new approach. These are just models and ways we might orient our thinking about innovation and change. But it certainly doesn't have to be disruptive.

Dr. Ruben Puentedura's [SAMR model](http://www.hippasus.com) labels levels of change going from substitution, augmentation, modification, and redefinition. You can see how some change or technologies might feel more 'sustaining' (continue existing practices) while others in the advanced level are more transformative and could be considered discontinuous or disruptive innovations.

*SAMR model  
developed by Dr.  
Ruben Puenteduro -  
[www.hippasus.com](http://www.hippasus.com).  
My column notes on  
the right offer how  
some changes are  
more 'sustaining'  
while others feel  
more disruptive.*



## Innovation in practice

The pace of adjusting or adapting to change will be varied for different people and organizations. Also, the pace of change depends on the new product or process that's being introduced. The important thing is that you need to encourage people to rethink whatever they're familiar with, whatever habits or routines they have created for themselves.

We'll look at a few practical examples of how innovation acceptance happens in a real-world setting.

## Lecture capture mapped to disruptive innovation

Have you wondered if lecture capture is passé? Or, going even further, if it's actually enabling outdated instruction?

Let's be careful not to throw traditional lecture capture under the bus. There is a lot of value in good lectures, even when they're long. That's where part of the innovative behavior comes in. If you're a proponent of constructivism or active learning pedagogy, the flexible software-based solution that we introduced for lecture capture actually presents new affordances that enable faculty to greatly enhance how they use this technology, and explore different instructional strategies.

First up is Relay (educational video platform) as it applies to Christensen's disruptive innovation.

At Boise State University, we replaced all of our lecture capture and video conferencing hardware appliances with purely software-based solutions. Specifically, we chose Zoom for video conferencing and next-generation video platform TechSmith Relay for classroom recording.

Before the change, instructors were restricted to automatically-scheduled recording appliances and navigated complicated, elaborate workflows to syndicate content. There was a lot of overhead to check on the recorders and troubleshoot when things went wrong, plus pricy storage costs and maintenance for server environments. This was certainly a motivation to change but, surprisingly, cost wasn't even the primary driving issue.

Somewhat non-intuitively, one of the problems was perhaps **too little** friction on the part of faculty members. Since recordings were automated, lecture capture became something they almost took for granted; it was an afterthought. The viewership of these (very expensive) videos was extremely low. No one was watching them.



## Selecting innovation and getting buy-in

We try to embrace values of being inclusive and bringing in anybody who might be affected into the decision-making process. Ensuring they have some sense of agency or a voice in the process is very important not just for success, but it's the right thing to do. We were deliberate in identifying all affected stakeholders, end-users, and decision makers, and tried to be as transparent as possible to make sure they had a say in the solution selection. Throughout the entire process we tried to be totally open and transparent about people's questions or concerns.

For evaluation and selection, the first level of gatekeeping is whatever governance or advisory group you can leverage or assemble that consists of stakeholders and affected groups (especially faculty and students). This group should be charged with reviewing any kind of proposal, pilot parameters, or technology criteria. Leveraging your IT governance can help determine if innovation is a good fit, whether it fits into larger priorities, and aligns with institutional values.

During any change or implementation process we try to interview people as much as possible. We also use survey data. For example, when something is integrated into our LMS, analytics can provide insight about who's using what tool. Of course, there are always your "go-to power-users" - five or six people you always think of because they're the first to volunteer and say, 'hey, if you have anything new, let me try it!' Those are the early adopters. They're really important in being able to vet new ideas.

Now, after Boise State has implemented the software-based educational video platform TechSmith Relay, recording and sharing introduces just a little bit of friction. It's still simple and convenient, yet requires just enough action so instructors are encouraged to be more thoughtful about what they're recording. It's affordable enough to put in every IT-supported space on our campus.

Additionally, TechSmith's entire suite of products allows for a lot of flexibility. If they want to do more sophisticated, complex videos, they can, with [Camtasia](#). Or if they just want to use the basic screen recorder, they can. A webcam in each classroom allows the video to have picture-in-picture. It's easy to get started with Relay. There are benefits for instructors as well students and those who provide support.

### Attributes of Disruptive Innovation

### Features of TechSmith Relay

Simple and convenient	→	Minimalist app and web library
Accessible and affordable	→	Unlimited, in every classroom, built-in captioning
Customizable	→	Can add interactivity, use with Camtasia
Compromises performance	→	Webcam and simple PIP
Attracts new customers	→	More office recordings and student use

With regards to early adopters, faculty really liked certain features like the one-click recording, robust player, and similar functionality. We found that we attracted a lot of new customers with the ubiquity of the product on campus. More instructors began using it in their offices and recording shorter videos, which is the ideal way for faculty to create video lessons. Another great trend is more students creating their own videos, including projects and student group work.

## Lecture capture mapped to the SAMR model

The SAMR model is another way to think about how video creation and sharing relates to innovation. The substitution level equates to basic lecture capture - trying to replicate the in-class experience simply by recording a lecture faculty would give otherwise.

### SAMR steps

### Corresponding use cases

Substitution	→	Recorded lecture
Augmentation	→	Viewership stats and quizzing
Modification	→	Shorter “chunks”
Redefinition	→	Student-produced video

Let’s say an instructor now wants to augment that experience - add short quizzes, look at viewership statistics, and take advantage of other features of next-generation video. Let’s suppose even further that this data tells them students might be misunderstanding a “muddy” concept, or not watching the entire video. A savvy instructor might start to pay attention and make shorter, more focused videos around specific topics students are struggling with. They might start to contextualize their videos with resources in the LMS. Maybe they start dabbling in the flipped classroom model where some content is viewed outside of class.

If they want to be truly transformative they can let students take hold of the learning experience by creating, producing, or curating video content themselves, individually or in groups. This would be a transformative student-led, constructivist-type model.

With a single product, there's a wide range of possibilities. The change in mindset started by just introducing this to faculty and getting it into their hands.

## Getting feedback along the way

It's easy to try to interpret what people need and give them what they want, but that's not what disruptive innovation would argue is effective. Sometimes you introduce new features that people didn't consider.

At Boise State University, we spoke to all faculty who would be interacting with the new platform - we got their input early and often. We also included the student voice. What are the benefits and potential value to students? We interpreted and communicated back what would be most beneficial for all involved.



## When old becomes new - student response systems

Sometimes innovation comes not from technology itself, but in how we use it. Years-old tech we think may have already been played out can introduce new opportunities, especially when the delivery methods change. Moving from hardware-based solutions to software/web-based environments opens up all kinds of new features and possibilities that themselves can lead to innovative behaviors.

Let's look at student response systems. Are these considered innovations? They're not exactly new, but let's look again at what is possible with these systems.

A few years ago we did a 'bake-off' evaluation between several systems. As part of the evaluation we wanted to let faculty have a voice in the process. Our goal was to be inclusive to all viewpoints, so we could manage the pace of innovation.

Instructors could try out the iClickers via kits they could conveniently check out. This gave them the chance to see if they worked in an actual classroom activity, and if it aligned with their way of teaching. They appreciated having the opportunity to pilot-test these **before** they made up their mind, and before they had to commit to using them or having their students buy them.

Clickers are commonly used at the substitution level of innovation. They're a replacement for students to raise their hands, and for faculty to take attendance. The innovation gets interesting when instructors go one step further and proactively use student response results. Analytics let them look at data and start to think about what changes they can make in their curriculum, delivery of instruction, or introduce active learning activities (such as [think-pair-share](#)) using the clickers and apps.

### Diffusion of Innovation

### iClicker Adoption at Boise State

Trialability (pilot/experiment)	—————▶	Conducted pilot; free attendance; trial licenses
Compatibility (with current beliefs)	—————▶	Prior product; fits with instructional practices
Relative advantage (WIIFM?)	—————▶	Save students money; accessible; integrated
Complexity (should be simple)	—————▶	Simpler workflow; simple app/devices
Observability (prove it!)	—————▶	Research evidence; student/faculty feedback

We have what we call a “mobile-first” strategy - we’re promoting the iClicker mobile app over the physical hardware clickers. This taps into the fact that students already have some type of app-capable device, and it constructively addresses the aversion that some faculty have about not allowing mobile devices in their classrooms.

As we’ve discussed, change can be uncomfortable. But so far we’ve been supportive of either choice by faculty - if they have a ‘no-device’ policy that’s fine; we do support the hardware clickers but nudge instructors towards trying the app.

We have seen some conversions - instructors who have previously had ‘no device’ policies in class have since adopted the iClicker mobile app. This is due in part to the decision-making forces that we looked at earlier (Rogers). First of all, there was evidence of success. Also, the risks were low. Even in large enrollment classes, student devices can be kept under control through classroom management. Secondly, instructors experienced normative pressure from their peers and colleagues.



## The innovation of Open Educational Resources

Open Educational Resources (OER) can be considered another example of disruptive innovation at some level. OER typically refers to accessible web/digital content that is available for widespread sharing, redistribution and, in some cases, alteration.

The concept of ‘open’ in OER is innovative itself, as it introduces the notion of quality, inexpensive resources that supercede copyright. They’re free from a cost perspective and also comparable to free speech, in that they shouldn’t be restricted or withheld from people. This concept opens up all kinds of new opportunities for teaching and learning. Of course, there are criticisms, specifically about quality. Some skeptics question the digital format of OER. Understandably, some of these skeptical viewpoints may come from textbook publishers who invest heavily in traditional forms of printing.

### Attributes of Disruptive Innovation

Simple and convenient

Accessible

Affordable

Customizable

Compromises performance

Attracts new customers

### Affordances of OER

Web-based; digital

Anywhere, anytime, ADA-compliant

Free (or minimal platform fee)

Creative Commons licensing

Quality? Form?

Students

Looking at the research, there's [no discernable difference](#) between student performance in courses that use textbooks verses OER. At the same time, there's something to be said about a quality textbook. I have a lot of textbooks that I keep from my undergrad years, maybe you do, too (or, maybe you're not a nerd like I am!). There's something compelling about that hard-copy format. The challenge with OER is to replicate the level of rigor and care that goes into the publishing of some of those texts.

Let's look at how OER maps to the SAMR model. Most instructors gravitate towards the substitution level - trying to replicate a traditional textbook in a digital format, whether they're finding one in a repository or creating one themselves.

### SAMR steps

### OER Affordances

Substitution	→	Digital "textbook"
Augmentation	→	Analytics; A la carte content
Modification	→	"5 R's" or OER
Redefinition	→	Student-produced/curated content

Building on that, let's say instructors start to think about a more piecemeal approach and they want to use diverse sources. Now they can à la carte include a chapter from this source, a learning object from somewhere else. The diversity of sources and content producers adds new value. Instructors can piece together their own curriculum and tailor it towards their interest and those of their class. Many platforms and services have analytics that might inform what content to include, omit, or emphasize, as well as where students might get hung up. Of course, intrinsic to this OER philosophy is to allow others to remix, reuse, and redistribute the content. A transformative approach to curriculum and instruction could embrace a more constructivist model that has students create or curate the content themselves.



## Training for change and measuring innovative success

Any time we're doing a change or a launch of new technology, training is something we definitely emphasize. When implementing our new lecture capture system Relay, there was a lot of training, communication, workshops, and documentation. It was the new product for all of campus. There was a lot of 'to-do' about the new functionality.

Training goes beyond just workshops. We sit down individually with a select group of faculty members and want to make sure they are completely on board. Those are our early adopters and our champions. As long as they have a solid sense of familiarity and they're prepared to be successful with the technology we're rolling out, then any expansion beyond that is more likely to be successful. In fact, we like starting with focused pilot stages. We will purposefully let pilots drag on for a long time because we want to make sure we're working out any kinks before things are more publicly rolled out to the broader campus. We want to ensure we have a good understanding of what kinds of issues might come up, and establish a robust training protocol.

We have several units on campus that try to meet faculty where they're at and make sure whatever technology we're providing for them aligns with their instructional goals. Our Office of Information Technology has a team that manages tech environments and software administration. We do advanced technical how-to help, including managing pilots. We work closely with instructional designers in both our Center for Teaching and Learning and the Instructional Design department that's housed within Academic Affairs. We also have the eCampus Center and Extended Studies who are primarily focused on online education. They work with faculty members, usually as part of a program where they're putting entire courses or majors online, or helping faculty members with individual online courses. As long as these units are communicating and marching in the same direction, things go well.

We don't expect people to change overnight. For example, if somebody wants to stay traditional and capture the entire lecture from start to finish and put that online for students, that's a good start. We may guide them toward 'chunking up' their videos into smaller lessons, or how they might want to add quizzes. If that's too advanced or they're not ready for it or if they have a solid case for why traditional lecture capture aligns with their goals or philosophy for that class, then we support that.

It's a dialogue. We try our best to facilitate two-way discussion between on-campus technical support staff, design consultants, and faculty themselves to make sure we're in alignment.

## Let's move on to the 'why'

What are the barriers to innovation in higher education? Common challenges include funding, resources, and buy-in. In order to get at the 'why,' let's reframe the question and ask why should we innovate in higher education in the first place. Is it to break from cumbersome tradition and be more relevant/competitive? Is it to produce more employable graduates in a tech-savvy, globalized world? Or do we simply want to increase efficiencies?

One might argue that efficiency is always good; there is always a benefit to doing things faster, cheaper, and better. But it's good to step back sometimes and ask: what types of activities are we automating or trying to make more efficient? Are we inadvertently reducing human relationships, or other activities that could be inherently valuable or meaningful?

As administrators, we know that faster and cheaper isn't always better. Educational philosopher Gert Biesta asks, [what is good education in an age where we are preoccupied by measurement](#) and what he calls 'learnification' (i.e. a preoccupation with efficient, individualized forms of learning as opposed to thinking about education as a social enterprise for the public good)?

### Alleviating fears of change

Faculty sometimes hesitate to try something new in class and risk looking like an idiot in front of hundreds of students if the technology fails.

To mitigate this, from an infrastructure standpoint, we try to guarantee that things are as fail-safe as possible. Of course, nothing is ever perfectly unproblematic. There's always going to be something that goes wrong at some point. But that's why we go through pilots and try to really vet the core technologies that we officially support with our I.T. "seal of approval." We make sure there's a solid support infrastructure in place with the help desk, we know how to troubleshoot a lot of the problems, and we have clear documentation.

Even with that foundation, from a faculty member standpoint, if they're unconfident, they may not be successful. If they have reservations, we'll have them try one activity here and there, in a low-stakes setting. Encourage them to be honest with their students, tell the class they're trying something new. Work with them to phase it up gradually, as needed.

In 2010 [Dr. Penny Pasque developed an interesting framework](#) that discusses higher education as contributing to the public good. In this framework she emphasizes that higher education should be a social public good as well as an economic private good. So what does public good accomplish? Ideally, it would reduce crime, plus increase community and civic engagement. It could also improve the ability to adapt to and use technology, encourage inclusivity and diversity, and similar goals.

	Public	Private
<b>Economic</b>	<ul style="list-style-type: none"> <li>• Increased Tax Revenues</li> <li>• Greater Productivity</li> <li>• Increased Consumption</li> <li>• Increased Workforce Flexibility</li> <li>• Decreased Reliance on Government</li> <li>• Financial Support</li> </ul>	<ul style="list-style-type: none"> <li>• Higher Salaries and Benefits</li> <li>• Employment</li> <li>• Higher Savings Levels</li> <li>• Improved Working Conditions</li> <li>• Personal/Professional Mobility</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• Reduced Crime Rates</li> <li>• Increased Charitable Giving/Community Service</li> <li>• Increased Quality of Civic Life</li> <li>• Social Cohesion/Appreciation of Diversity</li> <li>• Improved Ability to Adapt to and Use Technology</li> <li>• Increased College Access across Race, Gender, and Class</li> </ul>	<ul style="list-style-type: none"> <li>• Improved Health/Life Expectancy</li> <li>• Improved Quality of Life for Offspring</li> <li>• Better Consumer Decision Making</li> <li>• Increased Personal Status</li> <li>• More Hobbies, Leisure Activities</li> </ul>

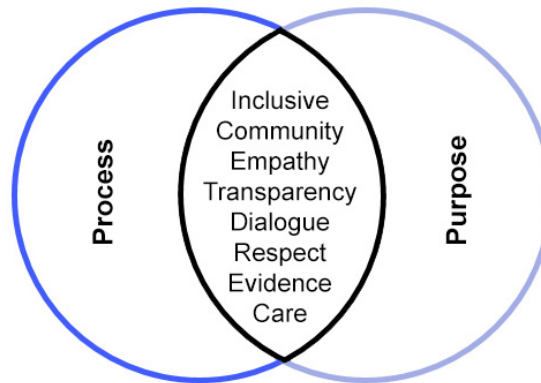
*Dr. Penny Pasque explores how higher education can contribute to the public good economically and socially.*

If these are broader goals of public higher education, how are our innovations aligned? This is where sometimes there's a disconnect. Our world is increasingly globalized. We need to look at how it's affecting all of us and how we, in turn, [provide value to the world](#). If this is the mission of higher education, we need to ask ourselves why most technology narratives, especially around innovation, focus only on individual learning efficiencies? We need to counterbalance these goals and consider how they complement each other. We need to be more intentional in thinking about the big picture; why higher education exists in the first place.

## Innovation for the public good

Innovation lives at the intersection of process and purpose. When your processes are aligned with some aim or goal, then you will have these values (such as inclusivity and having dialogue, community, and empathy) 'baked into' what you're doing.

With that in mind, you want to live those values as part of your change-management process. You don't want to be the authority declaring 'things have changed, get used to it.' Instead, be respectful and **show** them evidence that it works.



*Innovation for the public good lives at the intersection of process and purpose.*

Innovation attributes that support the public good are recognized by models of theorists. Ultimately, they can be essential to encouraging lasting change at your organization.

- **Trialability** - Everybody sees the value having the chance to try things out for themselves, the ability to experiment, or get used to things during a change.
- **Compatibility with existing beliefs** - As change-agents, this requires you to understand the values and beliefs that different groups might hold dear before you try to introduce change.
- **Decision-making should be collective** - There should be some sense of majority opinion (if not consensus) that you're striving towards before charging onward with significant change.
- **Utility** - What is the perceived and actual usefulness? Will people view this as being 'change for change's sake'?

In the examples we looked at-- lecture capture, student response systems, and OER- - the common theme is that these can all be used in accord with faculty preferences and values, and they can promote inclusivity, access, and agency among students. These principles align with the public good mission of higher education, and as we have seen in the innovation and technology adoption models, these principles can be supported by instructional technology tools and concepts.



## Partnering with vendors to embrace innovation

In third-party partnerships, we look for whether or not they are willing to engage collaboratively. If they give a standard sales pitch, then we're not interested.

Beyond evaluating the formal RFP, we have processes in place to take a deeper look, to see whether what the vendor claims is a reflection of reality. Usability testing is part of that. We have testers try a product to see if they like it, and if it does - or doesn't - work as expected.

It's great working with vendors that are open to feedback regarding what our users are interested in, how they can accommodate those needs, and balancing what's needed at other institutions. TechSmith has been great to work with around their video platform, Relay. I like when vendors try to build a community base, when they're intentional about trying to harvest feedback from their customers. It's great when we can tap into our community of users to share best practices and advocate for things that we want together.

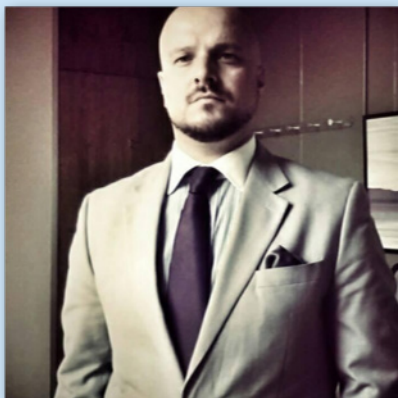
## To innovate is human

Regardless of your preferred innovation model to reference when rolling out new ideas at your institution, the 'what' and the 'how' can significantly help connect with faculty and staff where they're at and understand their perspective on the experience of change. In the end, new technology is the easy part. The human factor is the most important one to address when implementing any innovation, whether it's software, hardware, or a non-technical process change.

Taking a step back to look at the big picture of the 'why' of innovation helps clarify our foundational mission and the reason we strive so eagerly to find new concepts, technologies, and processes. As faculty and staff embrace improved ways of doing things, it's great to see them share knowledge with other institutions and to see students using new ways of thinking as they continue their higher education and beyond.

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This report is compiled from a live [EDUCAUSE Industry and Campus webinar "Innovation at the Intersection of Technology and Teaching"](#), September 11, 2018.



## About Leif Nelson

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In addition to providing leadership for learning technology initiatives at Boise State, Leif sometimes teaches courses in subjects such as Education, Leadership, and Information Science. Leif has a Bachelor's Degree in English and a Master's Degree in Educational Technology. His current research interests apply sociological and philosophical lenses to current trends in educational technology.

# 10x

Adoption rate of TechSmith Relay, compared to Odessa College's previous video platform

# 1/3

How much TechSmith Relay costs, compared to Odessa College's previous video platform



## TechSmith Relay<sup>®</sup>

# Fact Sheet

From the makers of Camtasia and Snagit

TechSmith Relay is secure educational video creation and hosting in one easy-to-use platform that integrates directly with your LMS.

### Key Benefits:

- **Secure, cloud-based video and image hosting platform**
- **Easy to use, software-based recorder - on any computer**
- **Create and view on mobile devices**
- **Seamless LMS integration, including BlackBoard, Canvas, Moodle, D2L Brightspace, and more**
- **Accessibility with speech-to-text, role-assigned, and human 3Play captioning**
- **In-video quizzing engages students**
- **Analytics show who's watching**

### As well as:

- **Camtasia and Snagit integration**
- **Easily organize media and manage users**
- **Dedicated customer care from rollout and beyond**

## “

*By consolidating our video creation and management systems on campus to just [TechSmith] Relay, we are saving the university over \$350,000 annually in software, hardware, and human resource costs.”*

— **Leif Nelson,**

**Director of Learning Tech Solutions, Boise State University**



**The higher education video platform you'll actually use.**

Better adoption • Better engagement • Better results

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**[www.TechSmith.com/Relay](http://www.TechSmith.com/Relay)**