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# DISRUPTIVE INNOVATION IN HIGHER EDUCATION:

## What is it and how does it impact on our planning?

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# Disruptive innovation

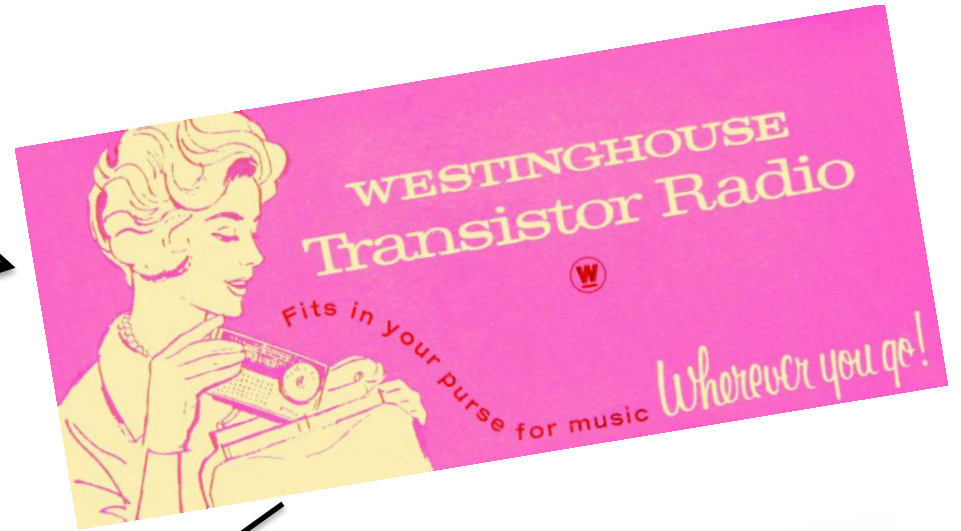
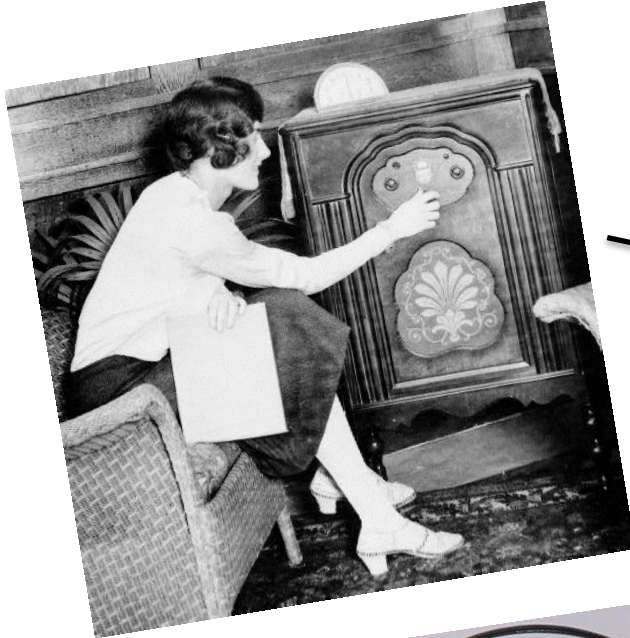
*“is an innovation that makes a complicated and expensive product simpler and cheaper and thereby attracts a new set of customers.”*

Clayton Christensen

Harvard Business School

Forum for the Future of Higher Education, 2008

# Example of disruptive innovation



# Sustaining versus disruptive technologies

Technology transforms:

- human resources
- capital
- materials
- information

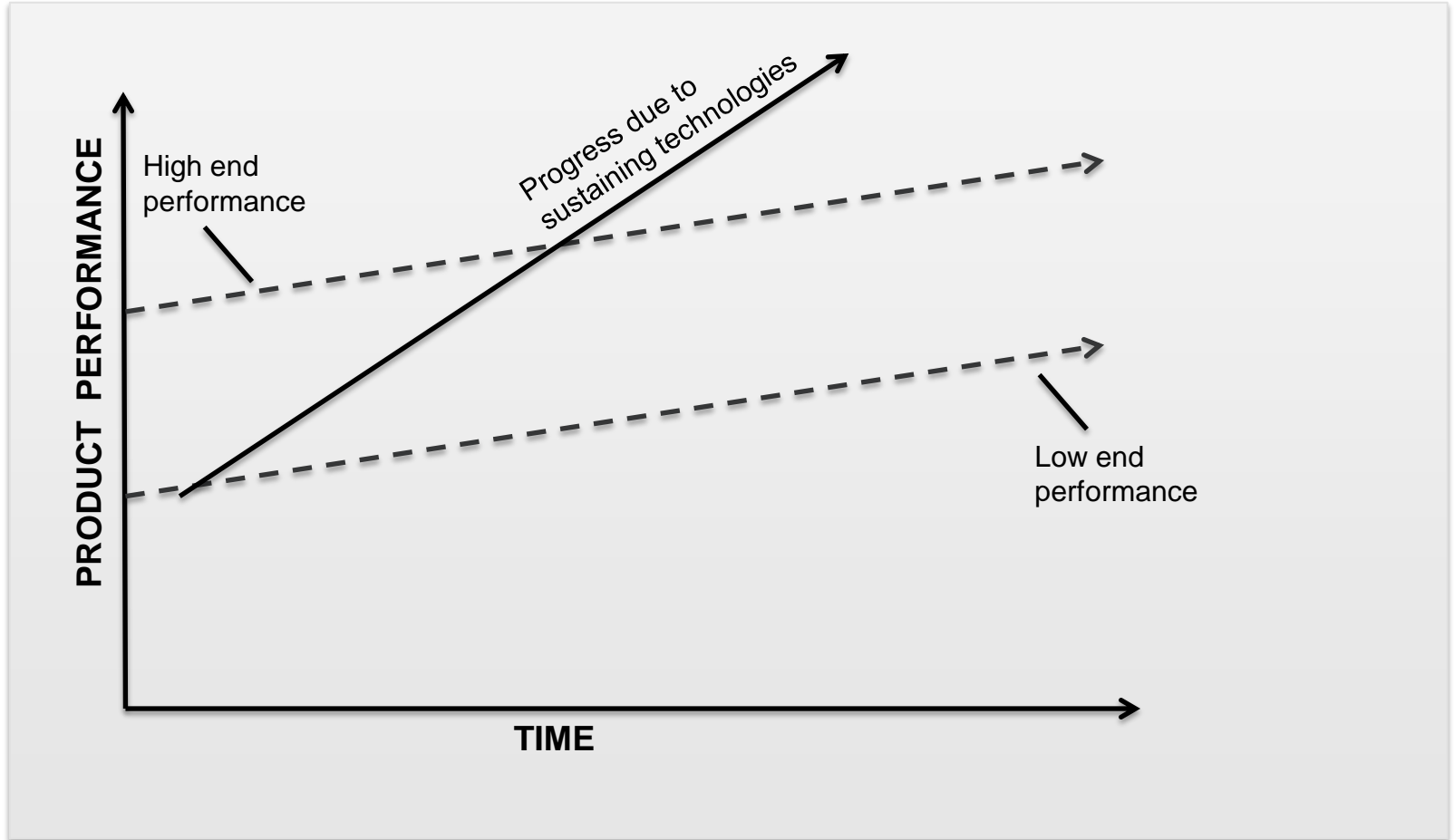


Products and services  
of greater value

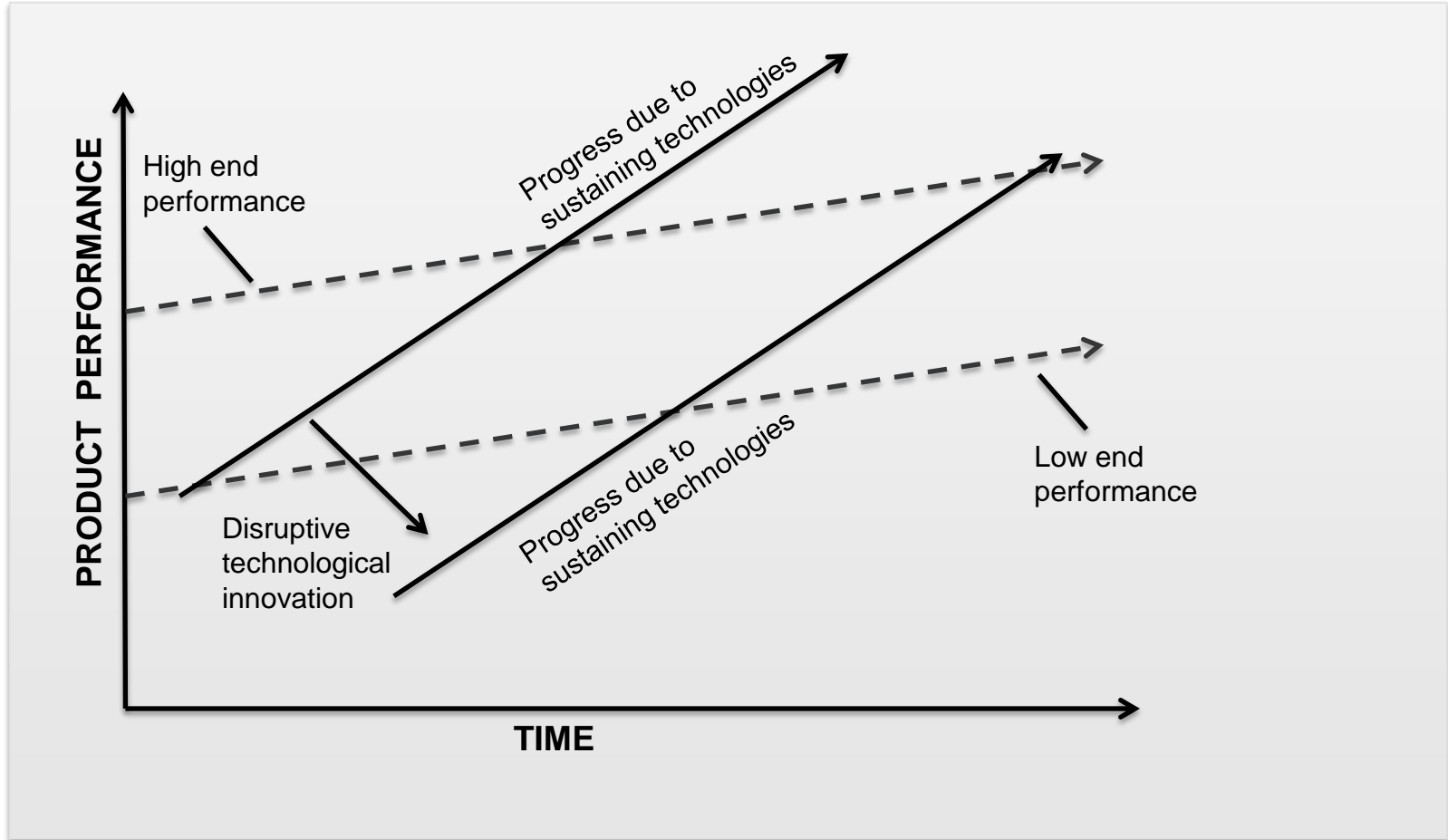
*Sustaining* technologies generally improve the performance of **established products**, that is valued by **mainstream customers** in **major markets**.

*Disruptive* technologies usually have worse product performance initially but have features that (generally new) customers value. They are often **cheaper, simpler, smaller or more convenient** to use.

# The impact of Sustaining and Disruptive Technological Change



# The impact of Sustaining and Disruptive Technological Change



# Why companies fail to compete

May be due to bureaucracy, arrogance, tired executive, poor planning, short-term investment horizons, inadequate skills and resources, or even bad luck

BUT

**well managed** companies can also lose market dominance by not investing in disruptive technologies. They may have concerns about:

lower margins rather than greater profits, 'insignificant' markets, the new products may not appeal to the most profitable customers

Ref: The Innovator's Dilemma, Clayton M. Christensen, 1997

# How does this relate to Higher Education?

‘Disruptive innovation’ is now evident in the way information is stored, organised, transmitted and retrieved. Examples include:

- Online and blended learning
- Mobile and Cloud computing
- Social networking
- MOOCs (massive open online courses)

*“In the near future, “internet appliances” may become disruptive technologies to suppliers of personal computer hardware and software”* (The Innovator’s Dilemma, Clayton M. Christensen, 1997)



# The media tells the story



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Duke University

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**Cryptography I**  
Stanford University

Started 5 days ago (6 weeks long)



**Introduction to Astronomy**  
Duke University



**Community Change in Public Health**  
Johns Hopkins University



**Vaccine Trials: Methods and Best Practices**

# Academic Earth (free online video lectures)

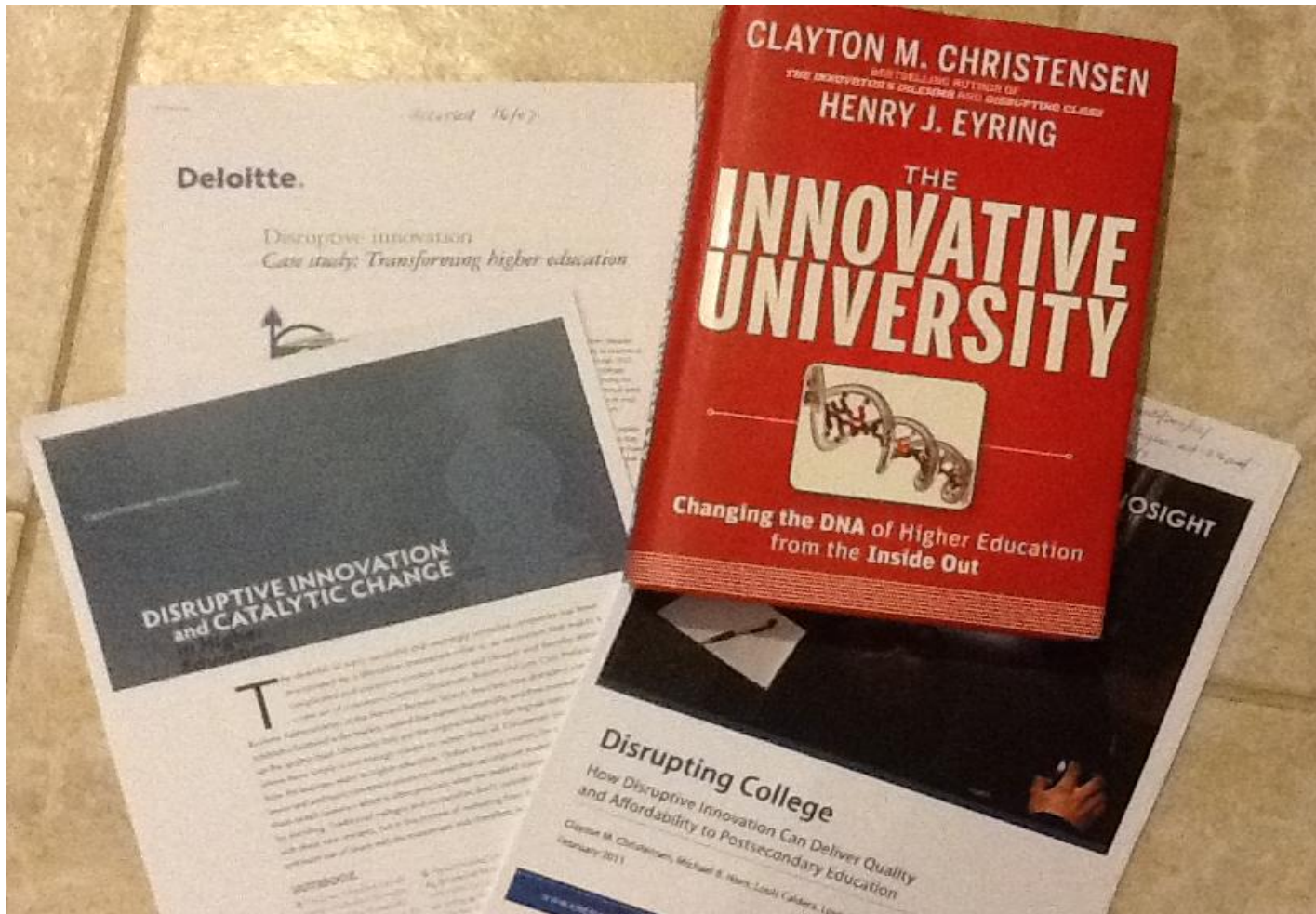
The screenshot shows the Academic Earth website interface. At the top left is the logo "ACADEMIC EARTH" with a green circular icon. To the right are links for "Sign in with Facebook", "or Login", "Create an Account", and a "Select Language" dropdown menu. Below this is a dark navigation bar with menu items: "Subjects", "Earn a Degree", "Universities", "Instructors", "Playlists", and "Blog". A search bar with a "GO" button is on the right. The main content area features a large heading "A world-class education at your fingertips." followed by a paragraph: "Academic Earth aims to provide everyone with the opportunity to earn a world-class education by offering free online classes and online learning tools. Whether you're looking to advance your career or take classes that interest you, Academic Earth can connect you to the world's top universities and scholars. Click below to learn how." Below the text are two buttons: "Watch a Lecture" (blue) and "Earn a Degree" (orange). Underneath are social media icons for Facebook, Twitter, Google+, and Email. On the right side, a video player is displayed on a computer monitor. The video is titled "Neuroscience Lab" and "UCLA". The video frame shows a man in a white lab coat and a tan hat, looking at a piece of paper that says "VENTRAL". A play button is centered over the video. At the bottom of the monitor are four small circles, with the second one from the left being blue.



# iTunes U (manage, distribute and control access to digital content)

The image shows a screenshot of the iTunes U website and an iPad displaying the iTunes U app interface. The website header includes navigation links for Store, Mac, iPod, iPhone, iPad, iTunes, and Support, along with a search bar. The main heading is "Apple in Education" with sub-links for iPad, Mac, iPod touch and iPhone, iTunes U, Profiles, Resources, and a "How to Buy" button. The main content area features the title "iTunes U" and the text: "Your courses. Like you've never been able to teach them before. Now it's easier than ever to unleash the full potential of iPad in your classroom by creating your own courses for iPad. You get to share your ideas in a powerful new way, and your students get a rich, immersive learning experience using the iTunes U app for iPad. iTunes U is available no matter where you teach — at any college, university, or K-12 school. [Sign up now](#) ▶". Below the text, there are three iPad screens: the left one shows a course catalog with titles like "HARVARD", "OHIO STATE", "STANFORD", "ECON102", and "PSYCHOLOGY"; the middle one shows a video player with a cell division video and a notes app with the text "Differentiation is the process by which cells become specialized"; the right one shows a course page for "Ecosystems" with a list of related courses.

# Sample of the current literature



# The Disruption of Harvard Business School

- Costs about \$250,000 to get a Harvard MBA
- Concerns about moving up the quality chain and losing touch with the mainstream customers
- Many companies cannot afford to hire Harvard MBAs
- Corporations now setting up their own universities
- ‘Harvard advantage’ is networking, connections, brand
- Is there a need for thinking outside the current organisational structure in order to innovate?
- Migrate away from ‘teachers’ to hardware and software programs that customise students’ learning experiences

# What is the impact for planners?

Where and how do we recruit students?

What type of teaching and learning facilities (physical and virtual) are most appropriate?

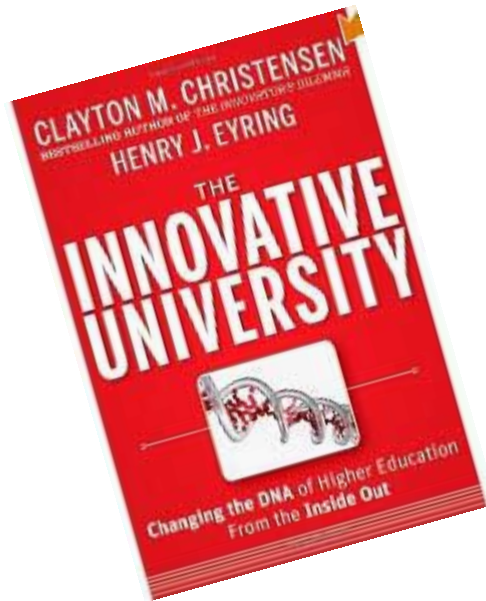
How many academic staff are needed and what should their skill set be?

When does attending class add value?

What resources do students need and how do we match expectations (“anywhere, anytime and on any device”) ?

How do we become more strategic in our planning?

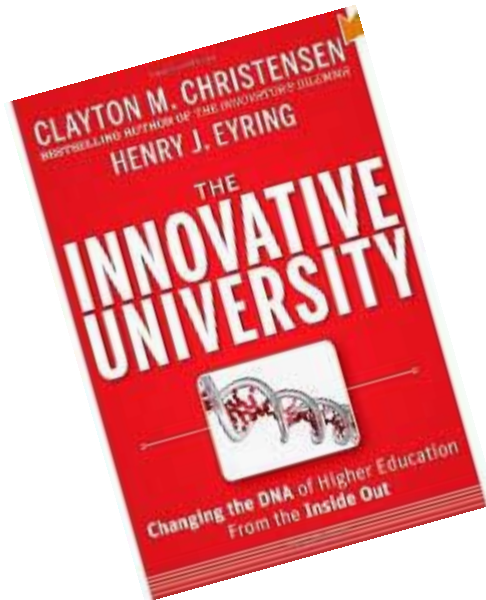
# How to respond to the challenge?



- Accept that fundamental change is coming to higher education
- Realise that online learning will allow more students to study with high quality and affordable cost
- Acknowledge that many students will continue to place value on the campus experience
- Strategic investments in staff and physical facilities will continue to have value
- Adopting online learning technologies will offer the best of both worlds



# Surviving and thriving



- Institutions that cling too long to the old model are unlikely to survive
- Those that innovate quickly have a bright future
- Innovation is not a defensive reaction but a strategy for success
- What is your institution's 'DNA' and can it be re-engineered?
- How can you focus on your institution's unique strengths to raise quality, lower costs and add value?

***In summary:***

***How are creativity and  
innovation integrated into  
YOUR planning processes?***

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