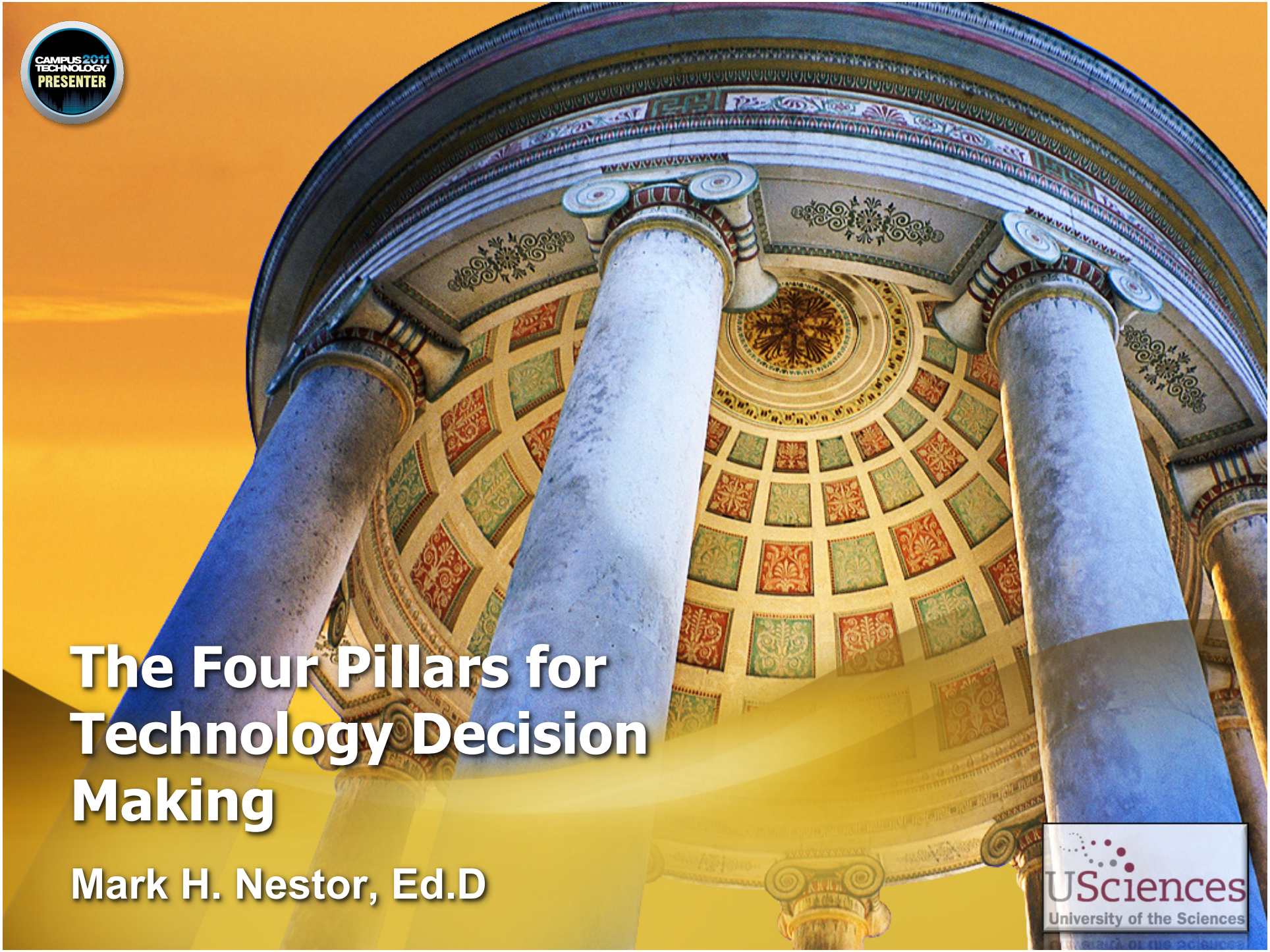
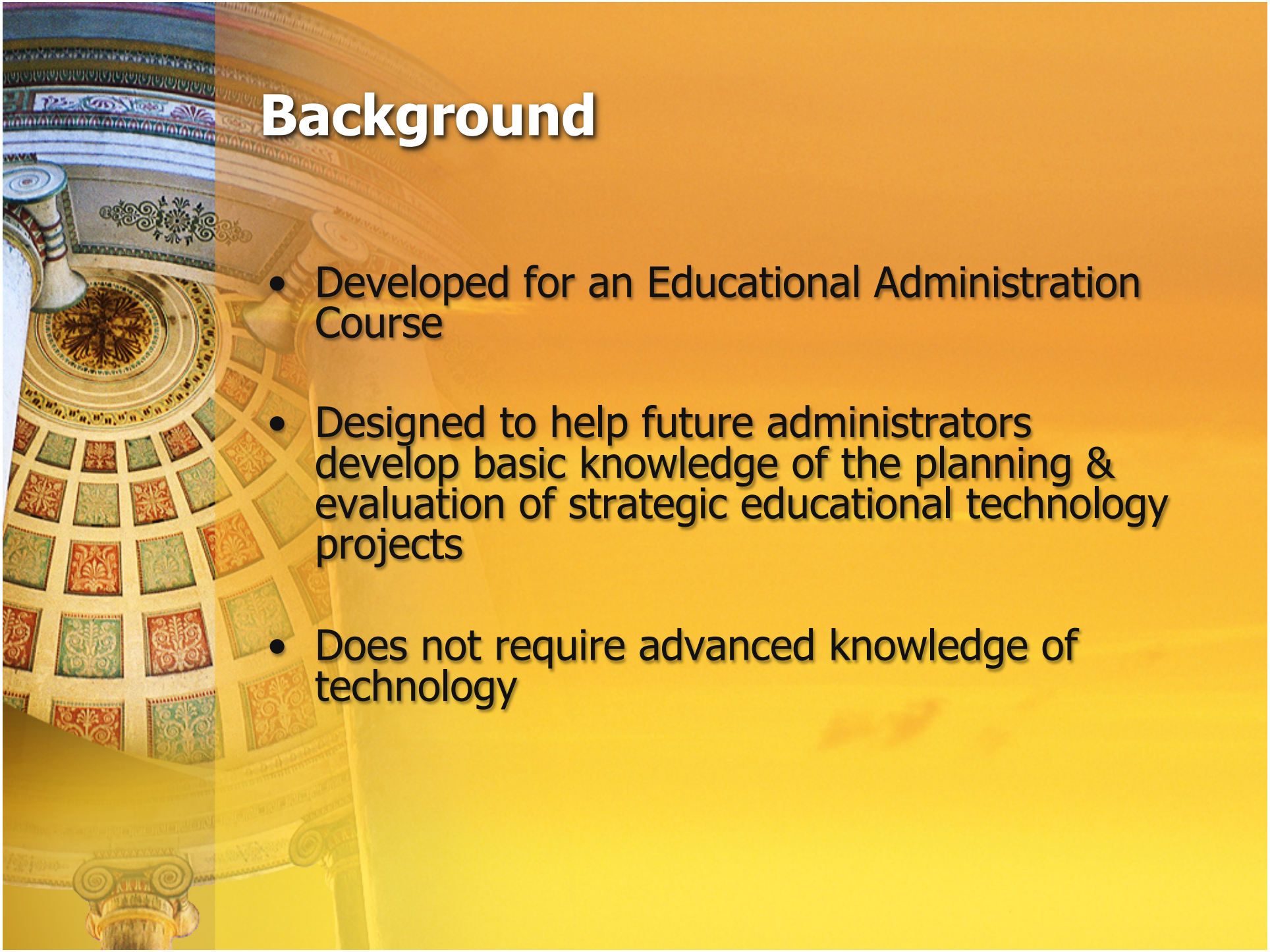
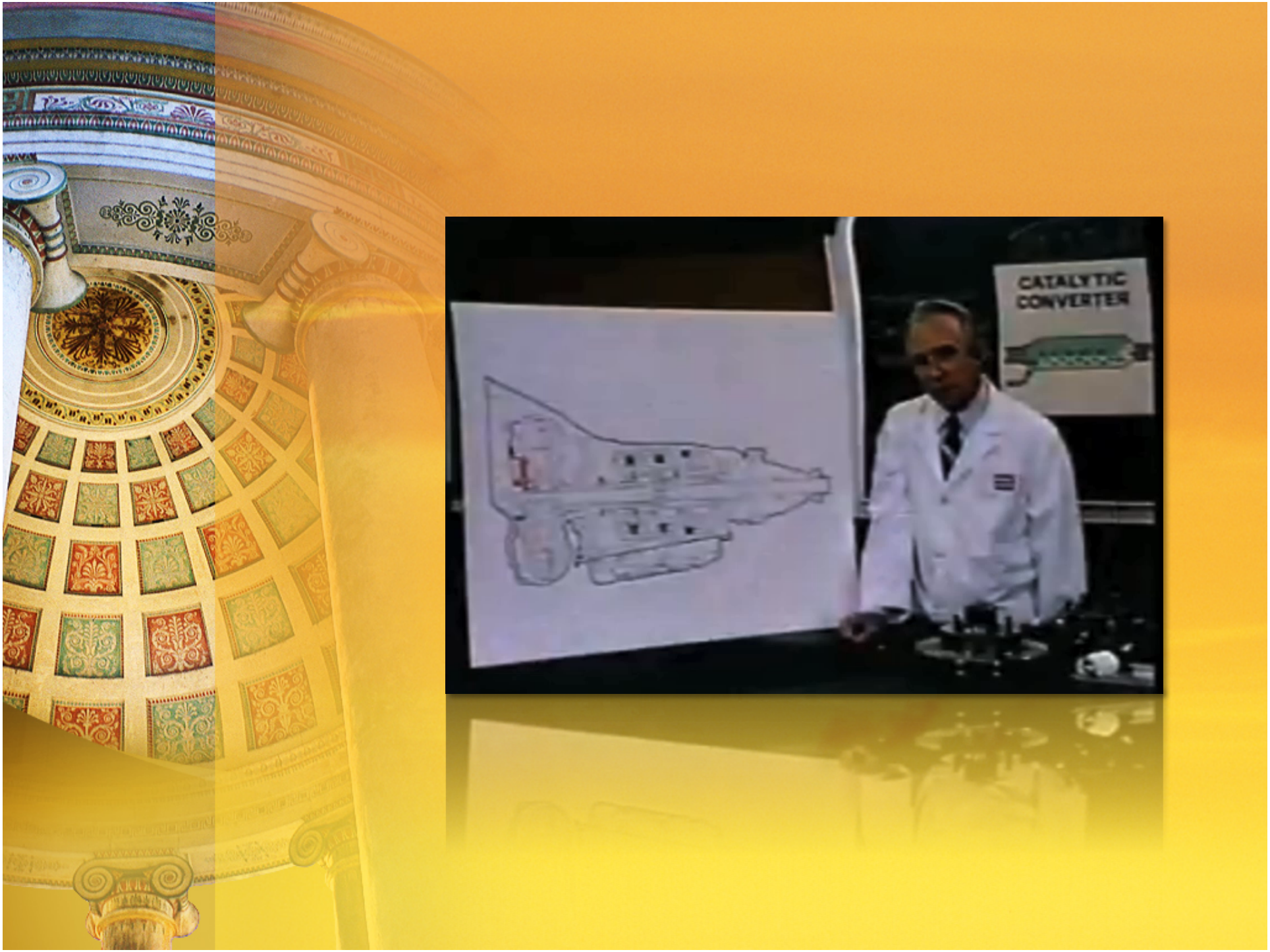

CAMPUS 2011
TECHNOLOGY
PRESENTER
The Four Pillars for Technology Decision Making
Mark H. Nestor, Ed.D
USciences
University of the Sciences



Background

- Developed for an Educational Administration Course
- Designed to help future administrators develop basic knowledge of the planning & evaluation of strategic educational technology projects
- Does not require advanced knowledge of technology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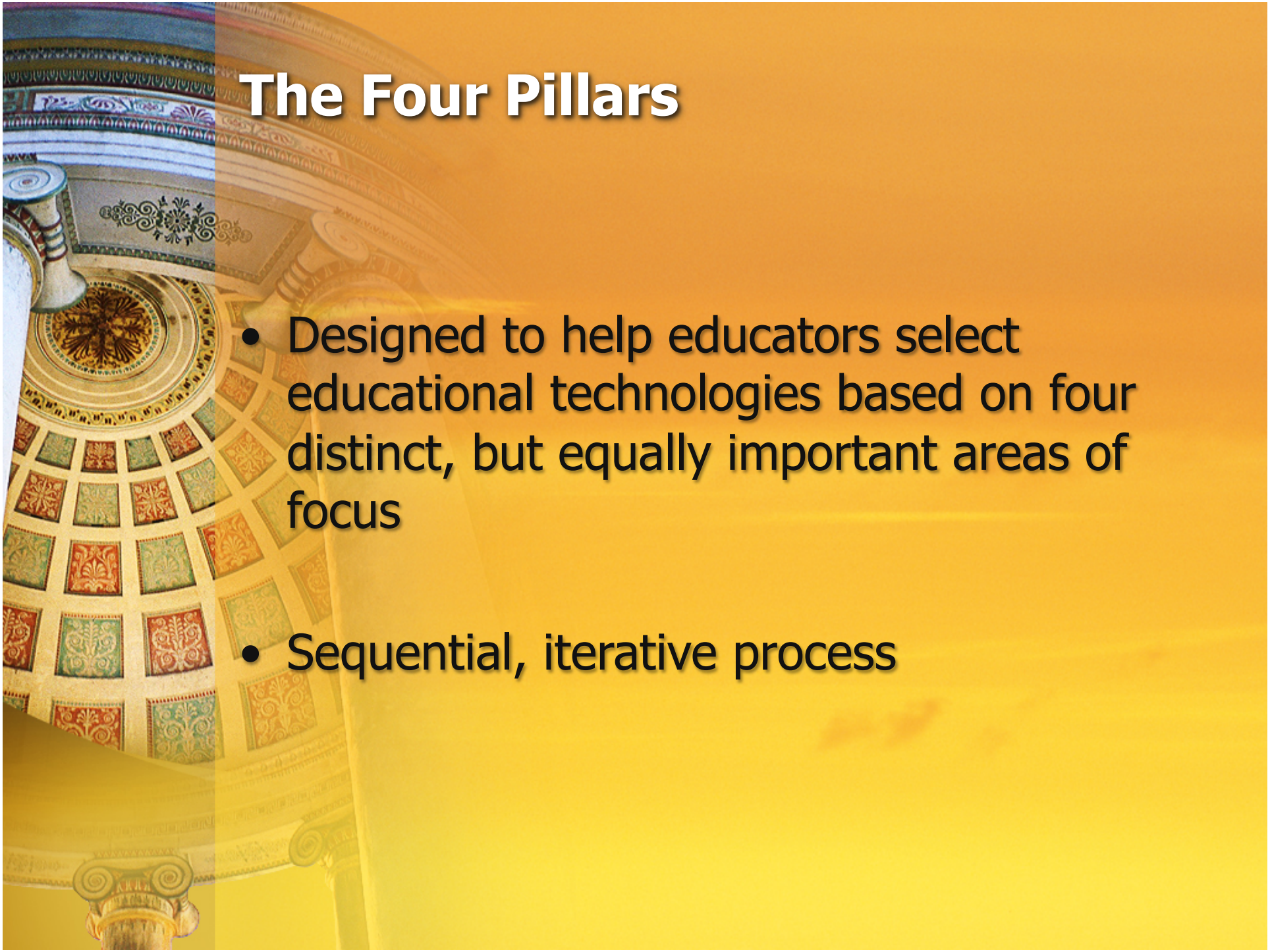
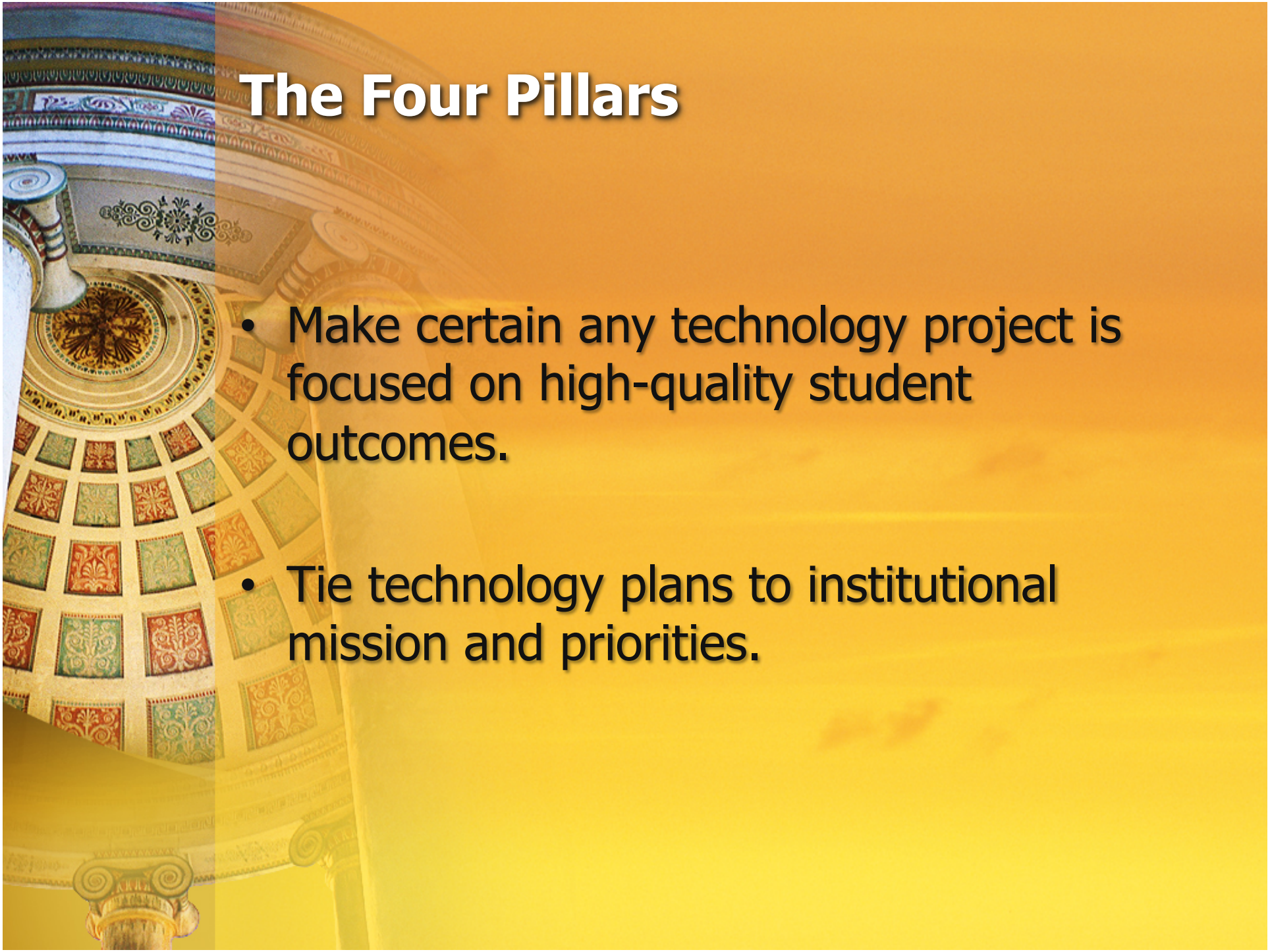


The Four Pillars

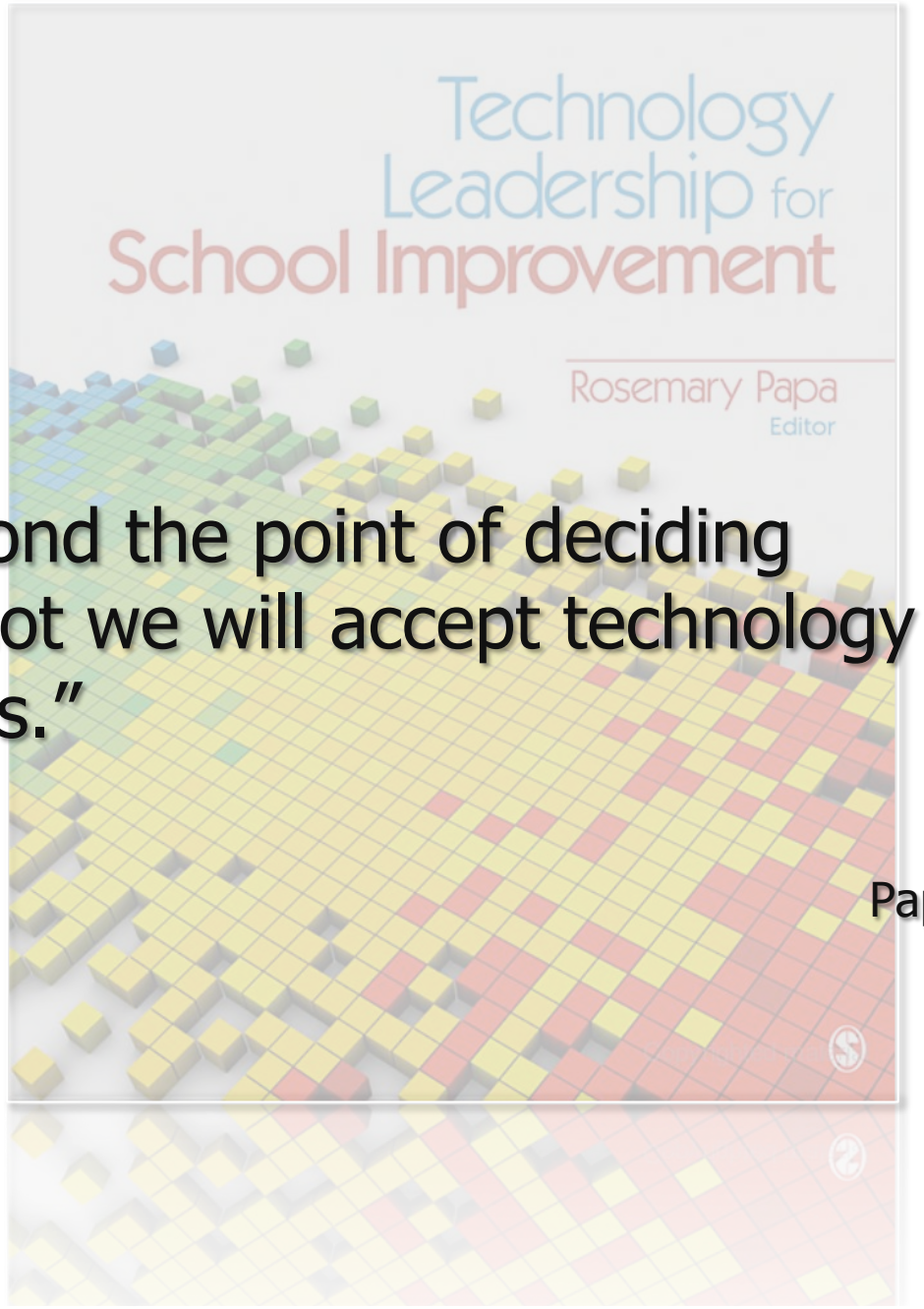
- Designed to help educators select educational technologies based on four distinct, but equally important areas of focus

- Sequential, iterative process



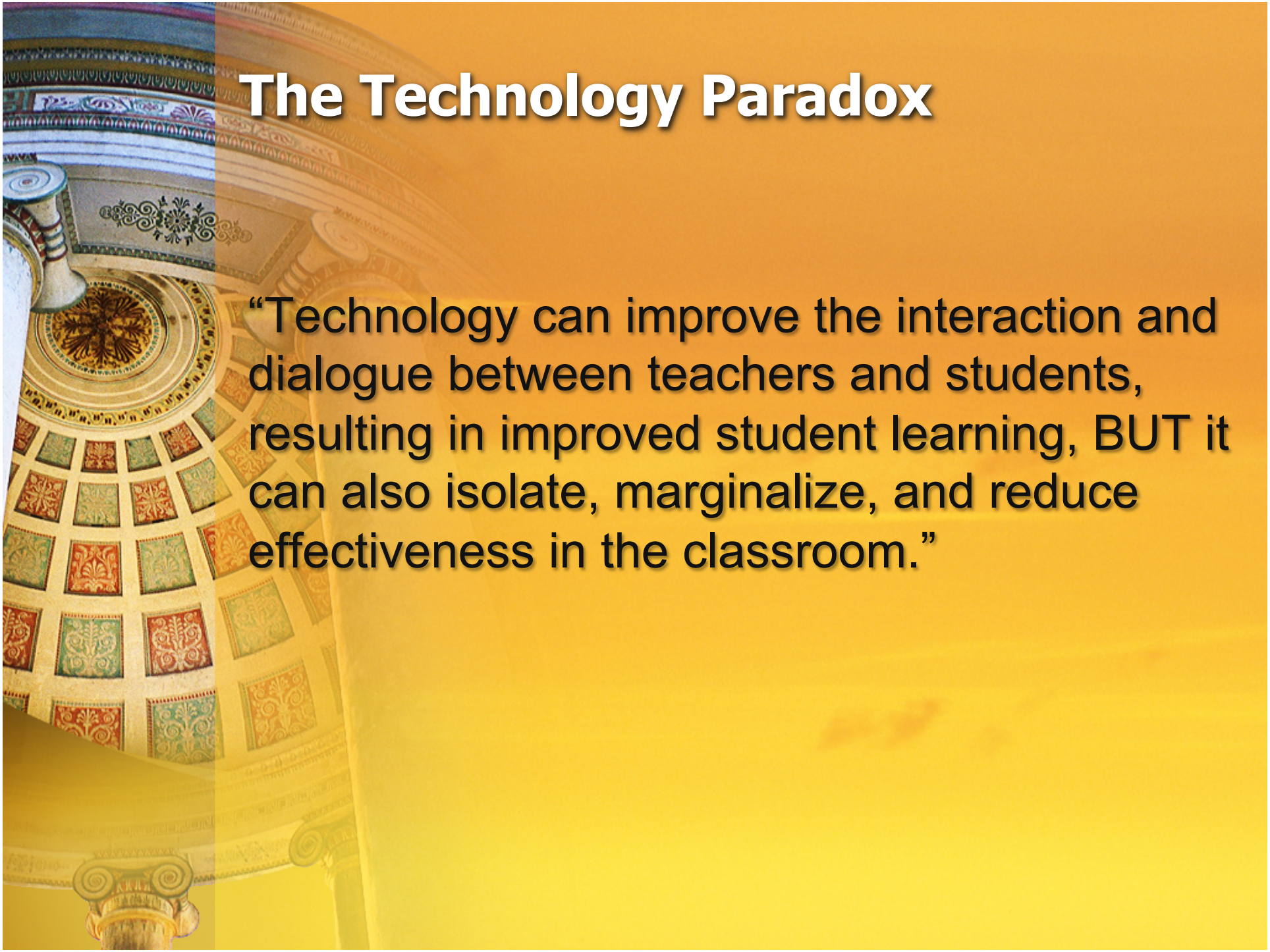
The Four Pillars

- Make certain any technology project is focused on high-quality student outcomes.
- Tie technology plans to institutional mission and priorities.



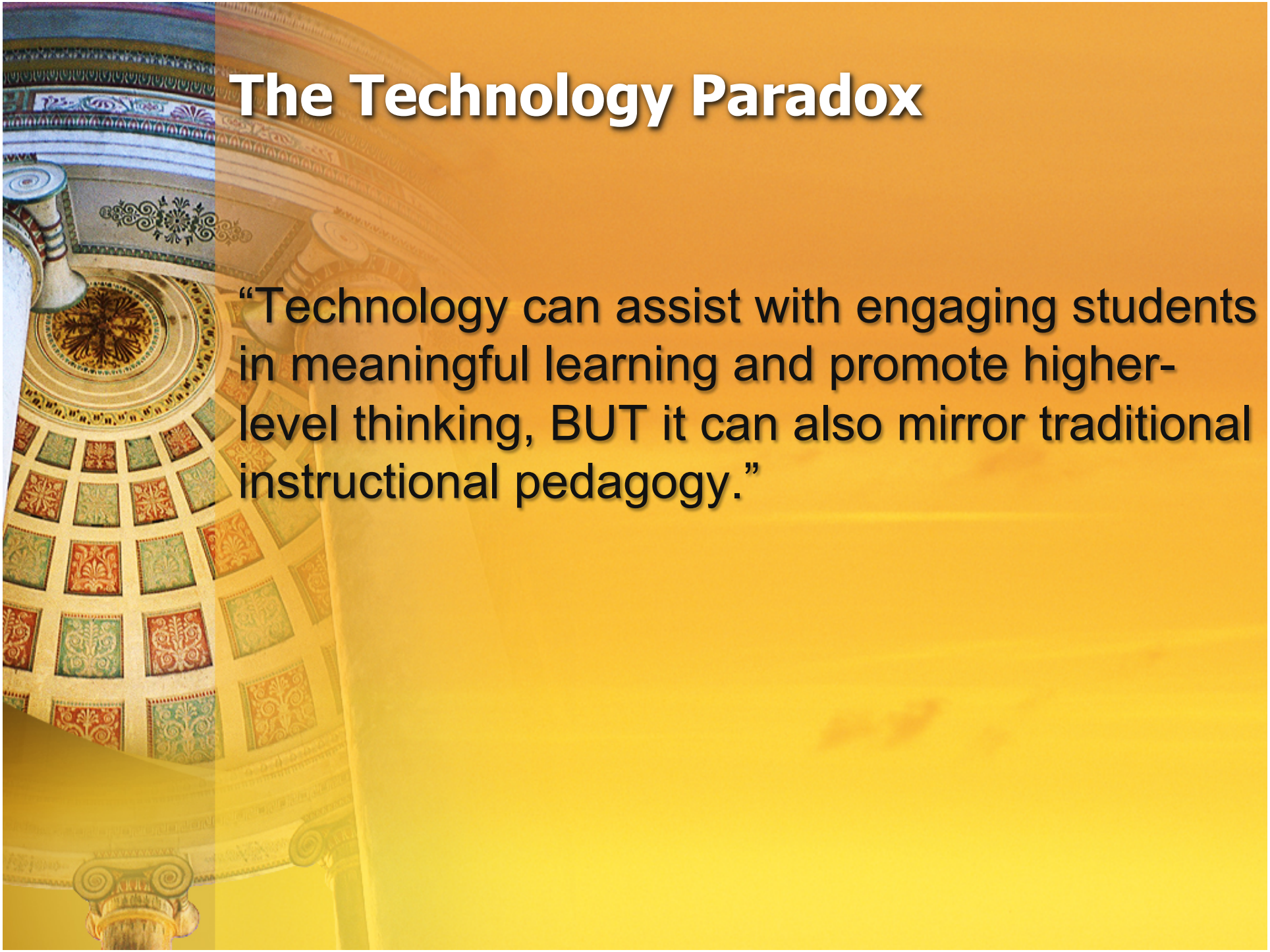
"We are beyond the point of deciding whether or not we will accept technology in our schools."

Papa



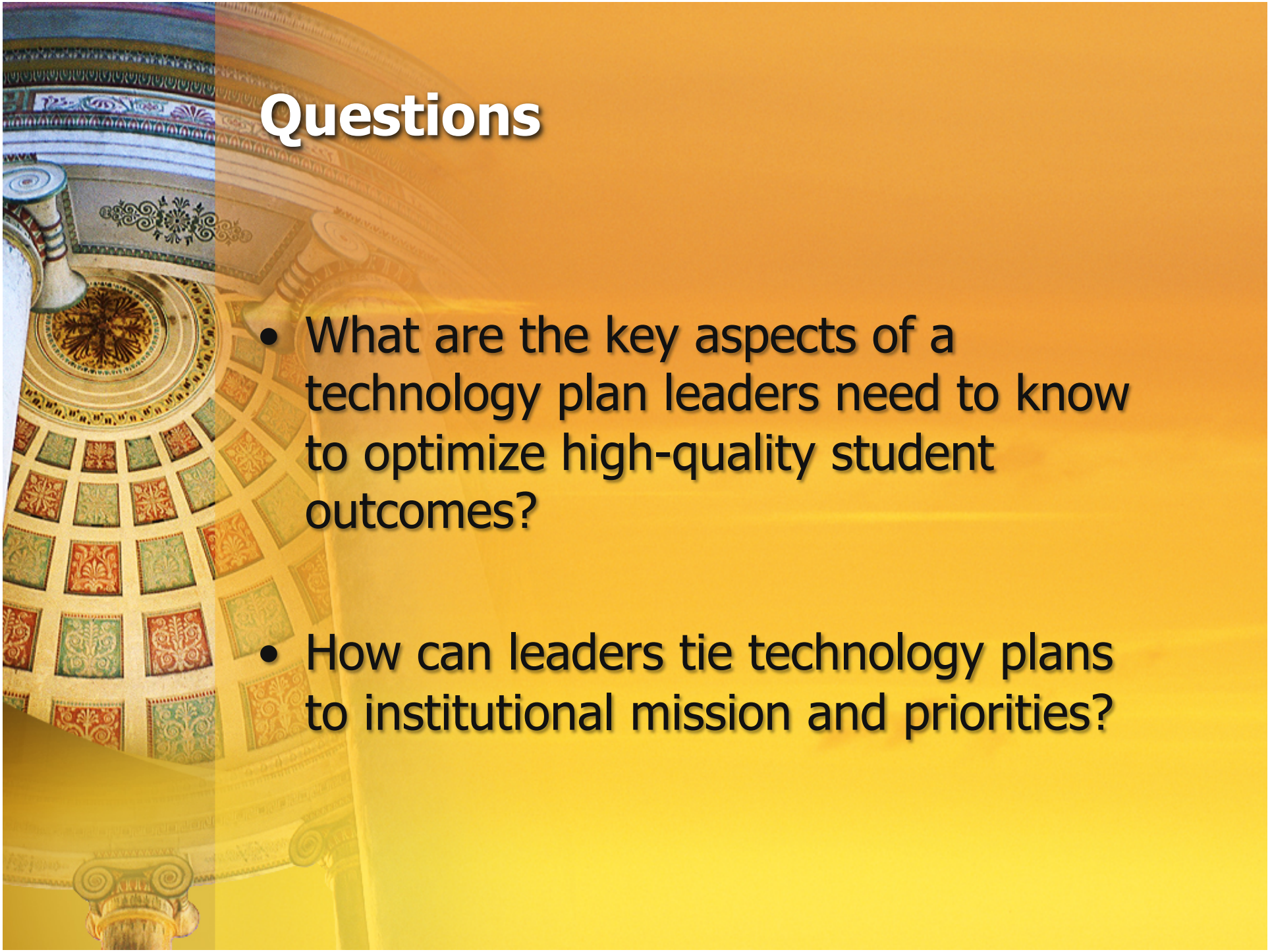
The Technology Paradox

"Technology can improve the interaction and dialogue between teachers and students, resulting in improved student learning, BUT it can also isolate, marginalize, and reduce effectiveness in the classroom."



The Technology Paradox

"Technology can assist with engaging students in meaningful learning and promote higher-level thinking, BUT it can also mirror traditional instructional pedagogy."



Questions

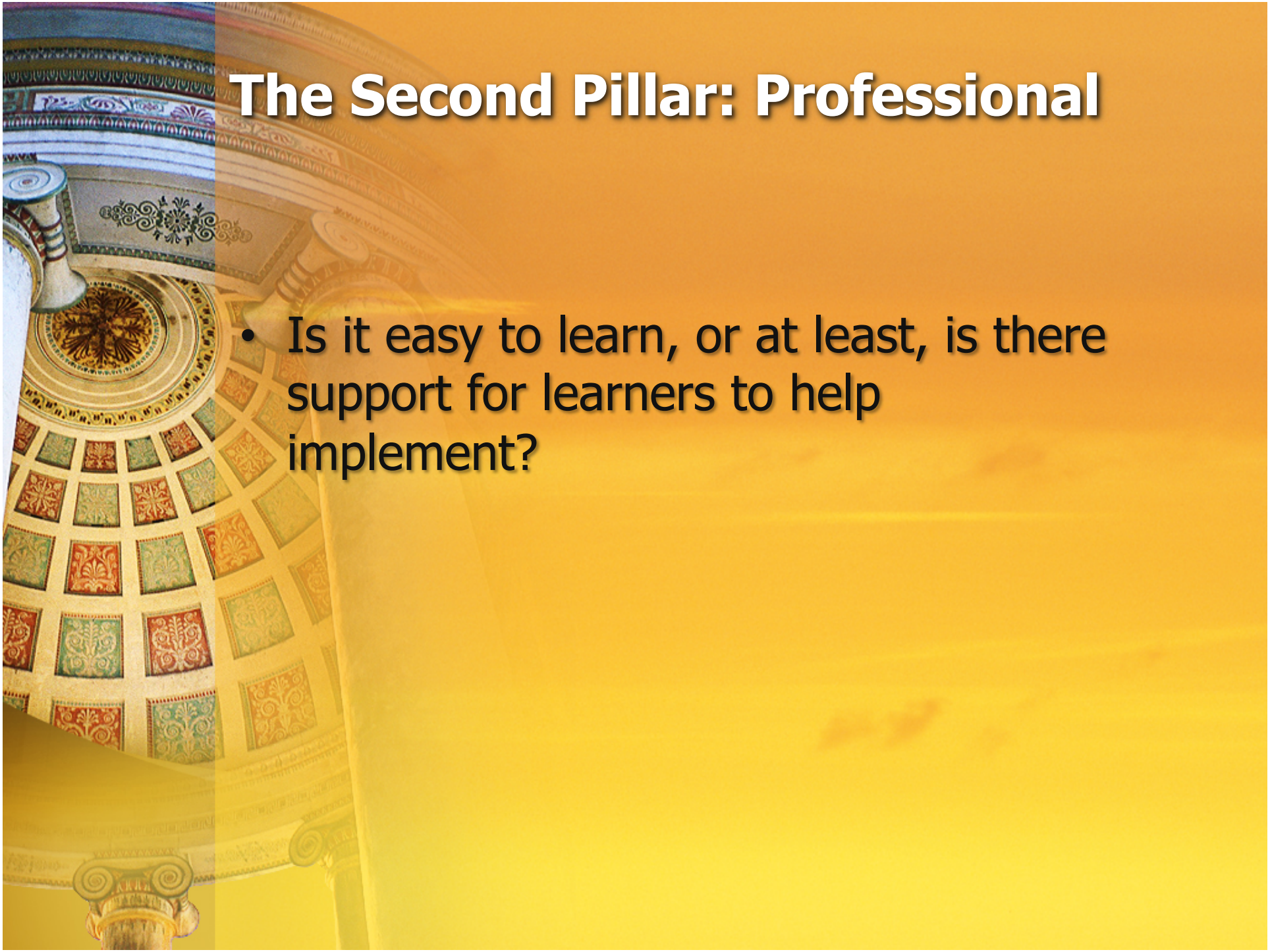
- What are the key aspects of a technology plan leaders need to know to optimize high-quality student outcomes?
- How can leaders tie technology plans to institutional mission and priorities?

"The Transformative level teacher uses technology tools in collaboration with the active student learner that address the global and digital environment we live in today"

ISTE, 2008

The First Pillar: Pedagogical

- Does it improve teaching and learning?

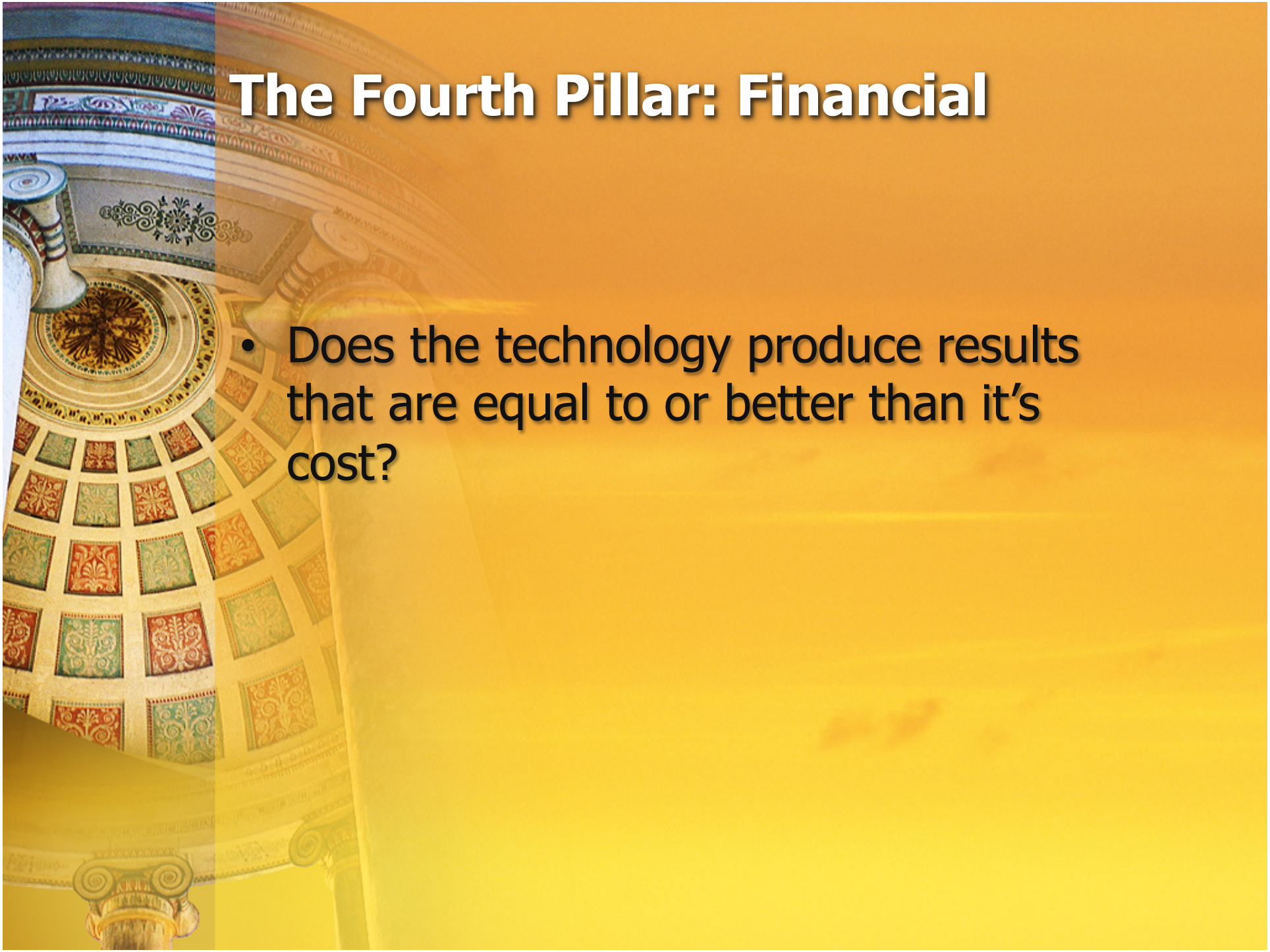


The Second Pillar: Professional

- Is it easy to learn, or at least, is there support for learners to help implement?

The Third Pillar: Technical

- Does the technology fit into the institution's system?



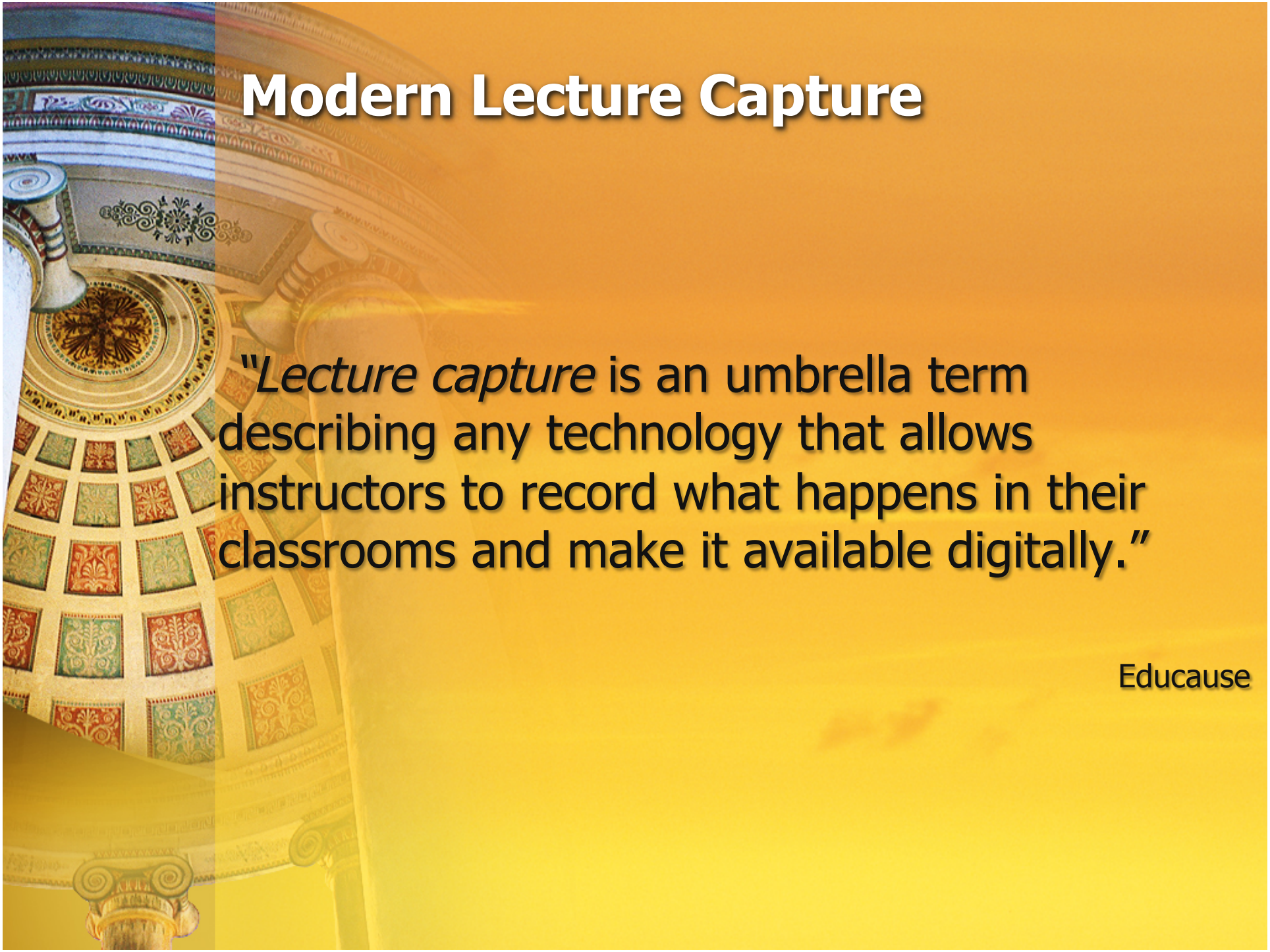
The Fourth Pillar: Financial

- Does the technology produce results that are equal to or better than it's cost?

Other Pillars?

- Ethical?
- Sustainability?

Using the Four Pillars – Lecture Capture as a Case Study

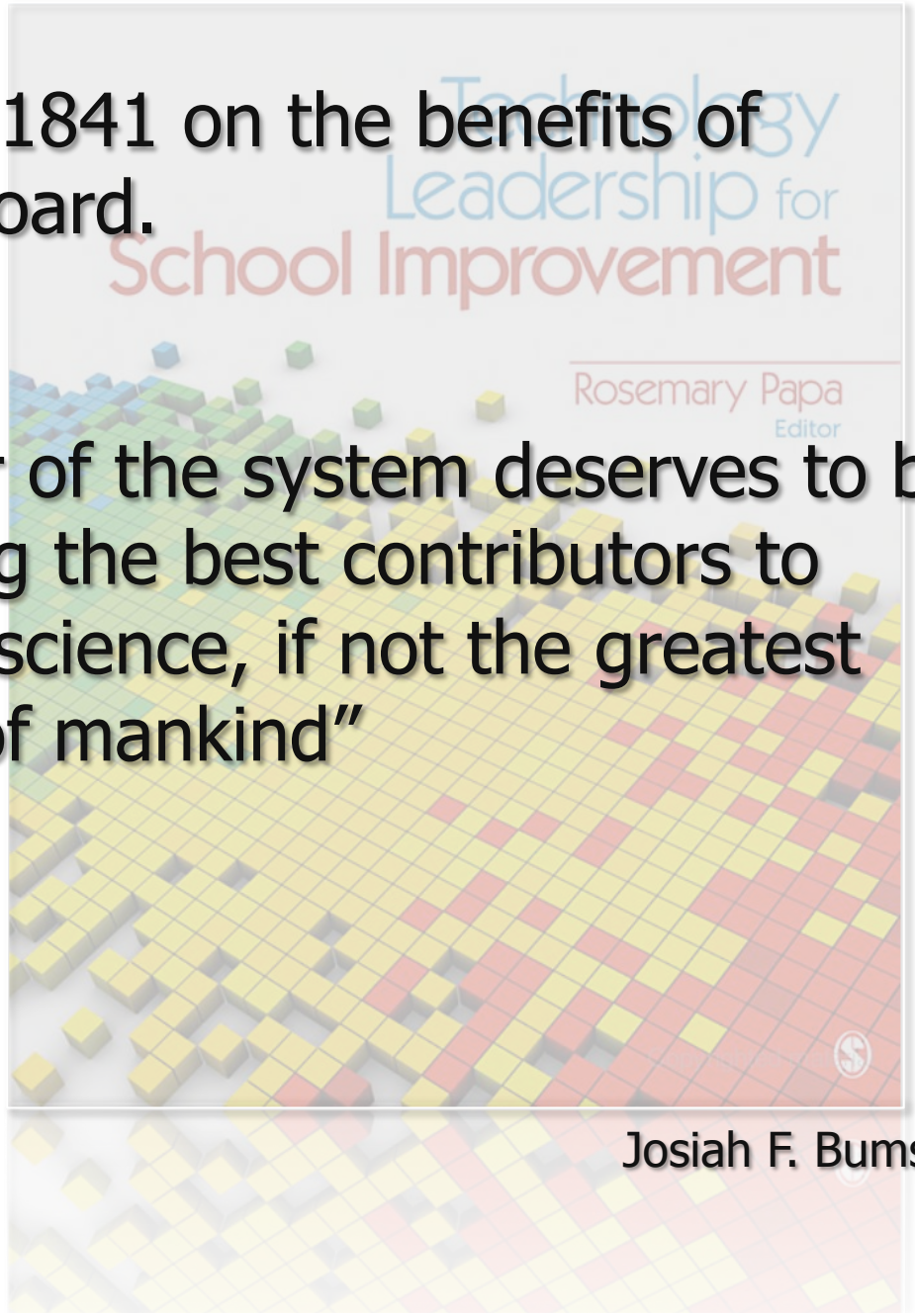


Modern Lecture Capture

"*Lecture capture* is an umbrella term describing any technology that allows instructors to record what happens in their classrooms and make it available digitally."

Educause

…made in 1841 on the benefits of the chalkboard.

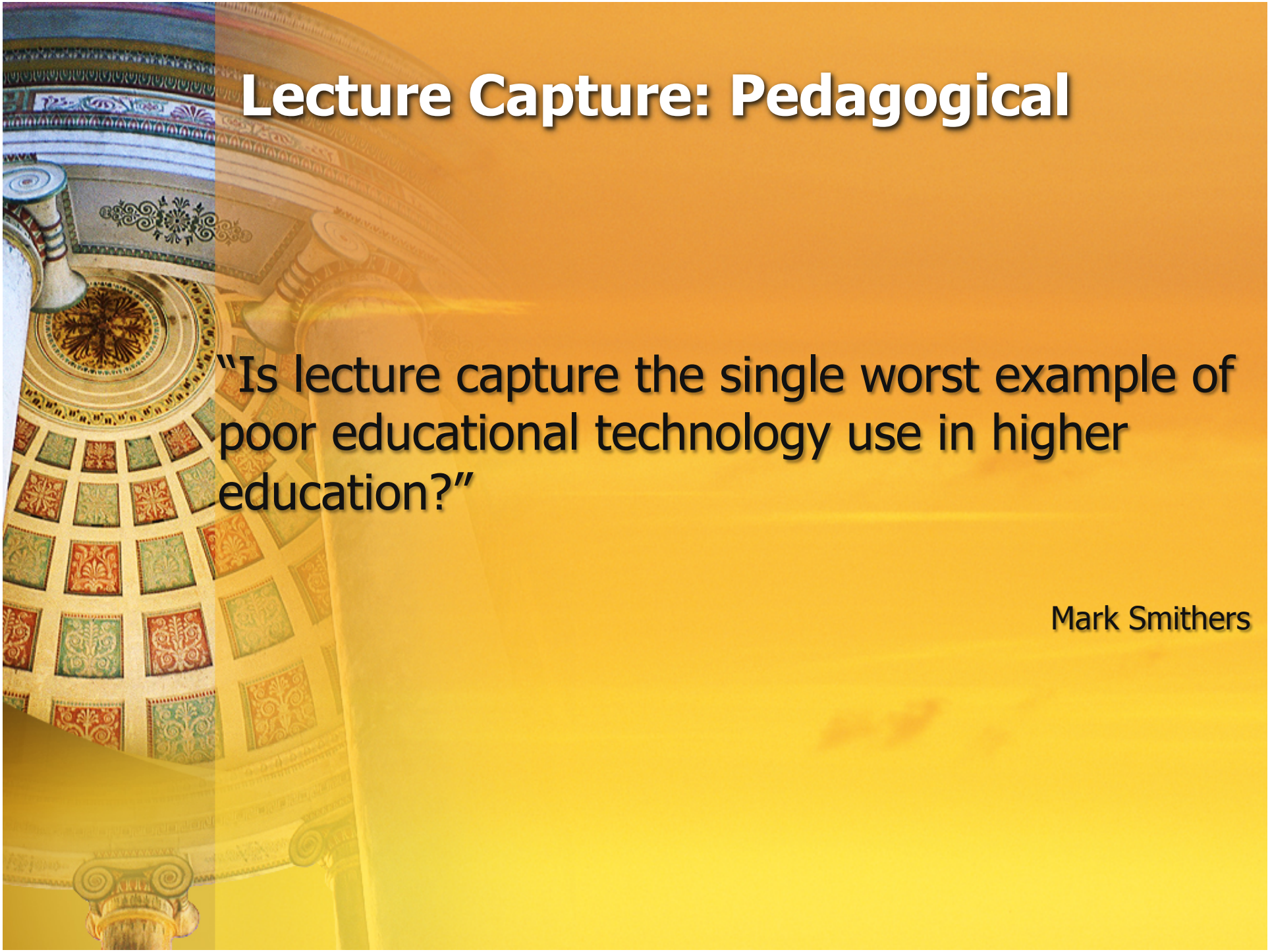


"The inventor of the system deserves to be ranked among the best contributors to learning and science, if not the greatest benefactors of mankind"

Josiah F. Bumstead

Lecture Capture – History

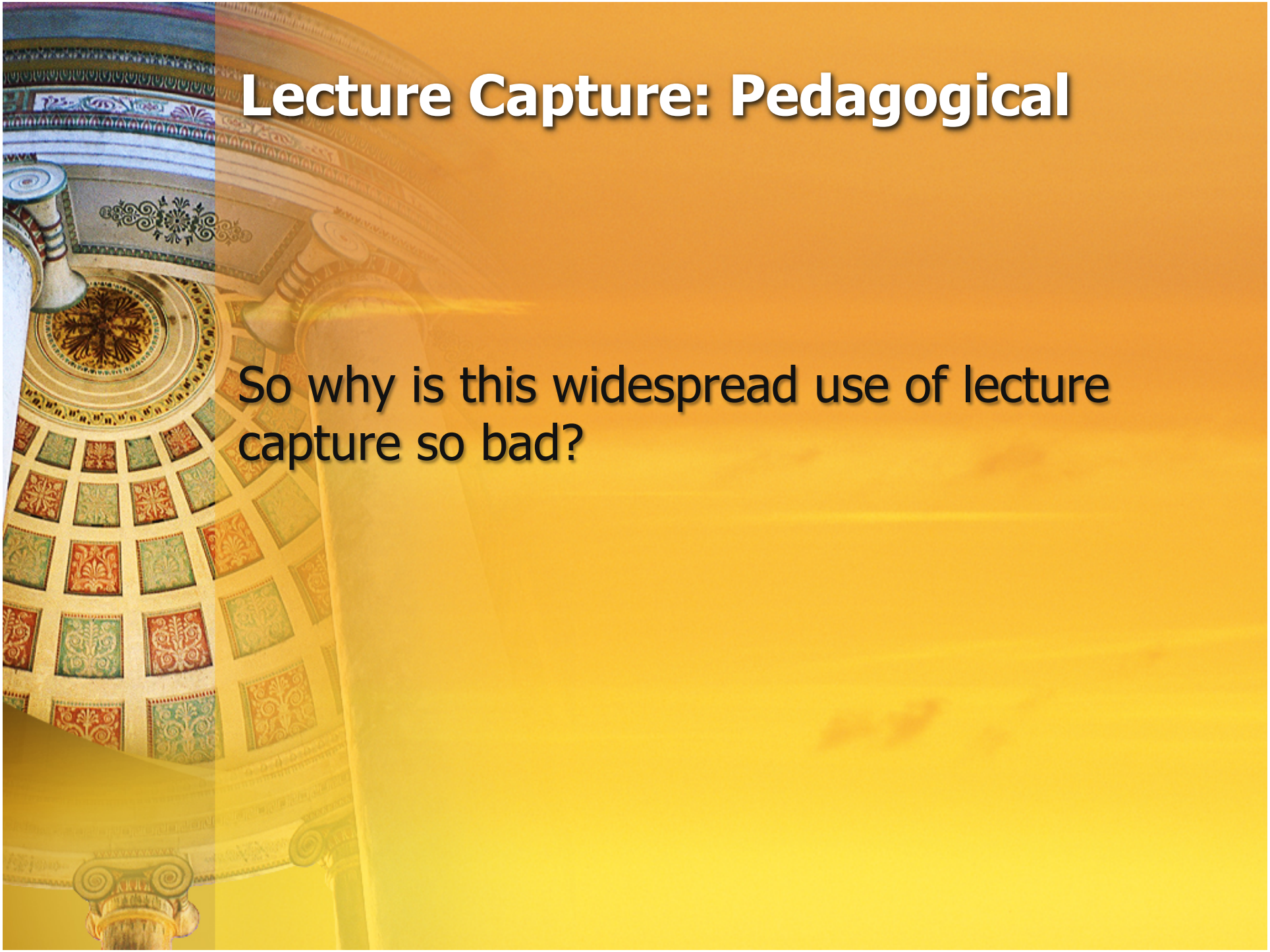
Lecture Capture: The Four Pillars in Action



Lecture Capture: Pedagogical

"Is lecture capture the single worst example of poor educational technology use in higher education?"

Mark Smithers



Lecture Capture: Pedagogical

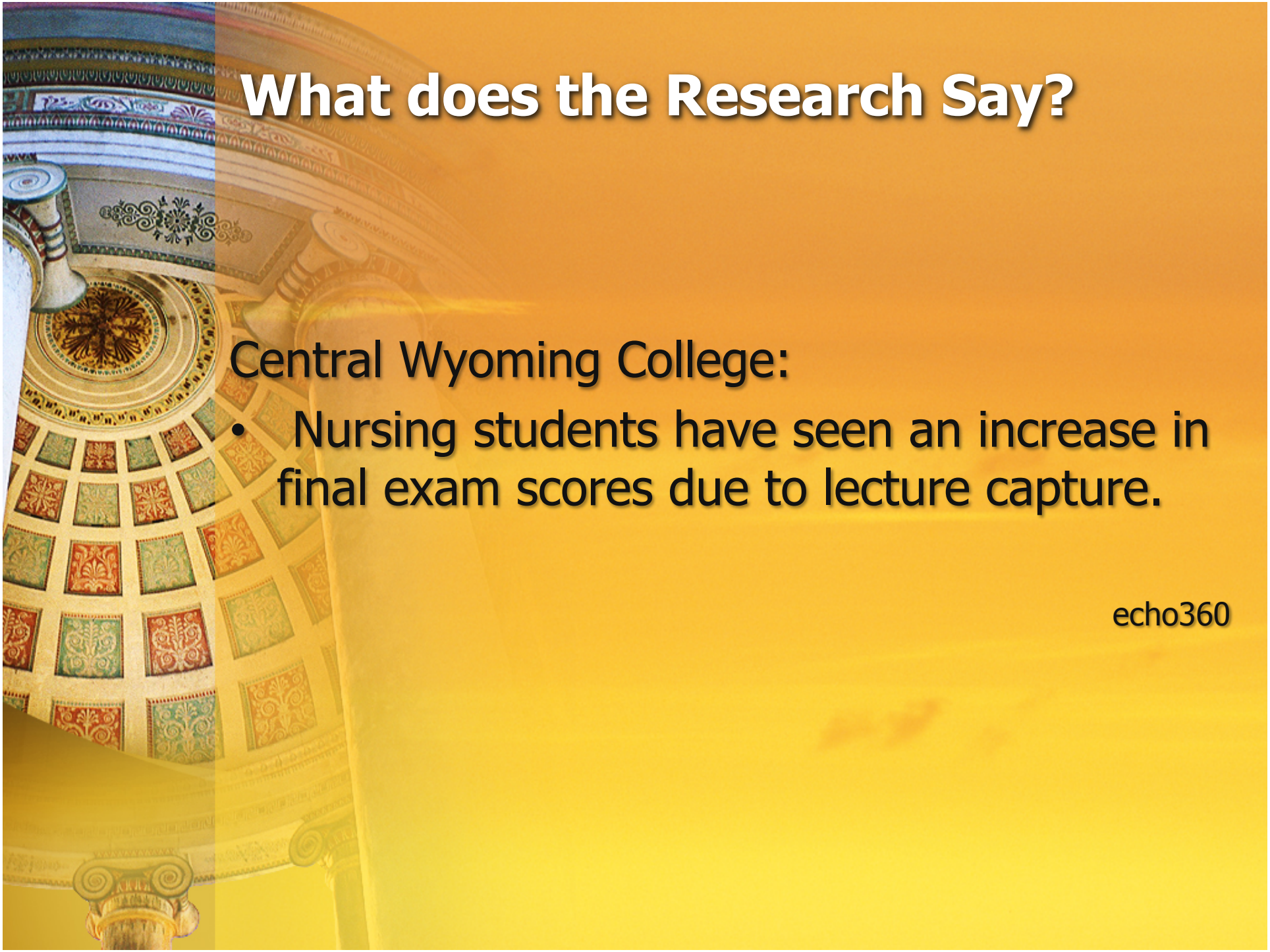
So why is this widespread use of lecture capture so bad?

What does the Research Say?

University of Alabama:

- 84% of students reported increase in satisfaction with their courses.
- 82 % reported improved academic results.

tegrity

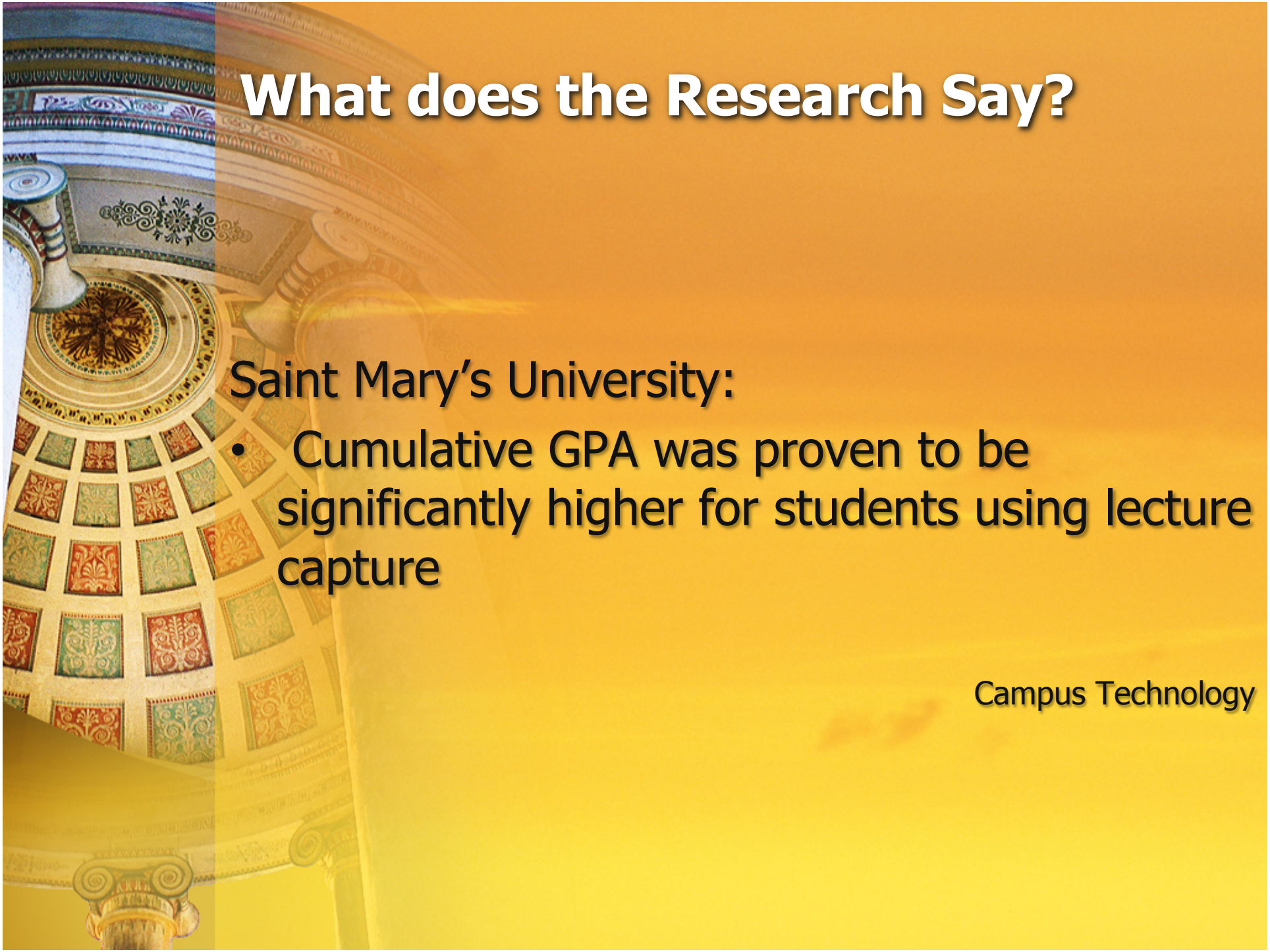


What does the Research Say?

Central Wyoming College:

- Nursing students have seen an increase in final exam scores due to lecture capture.

echo360



What does the Research Say?

Saint Mary's University:

- Cumulative GPA was proven to be significantly higher for students using lecture capture

Campus Technology

Lecture Capture: Professional

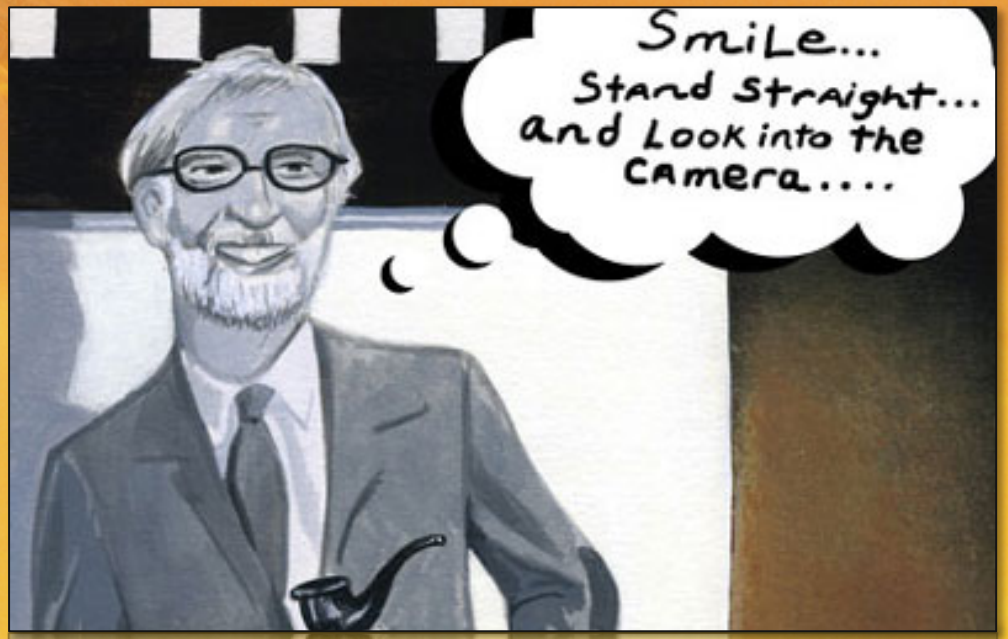
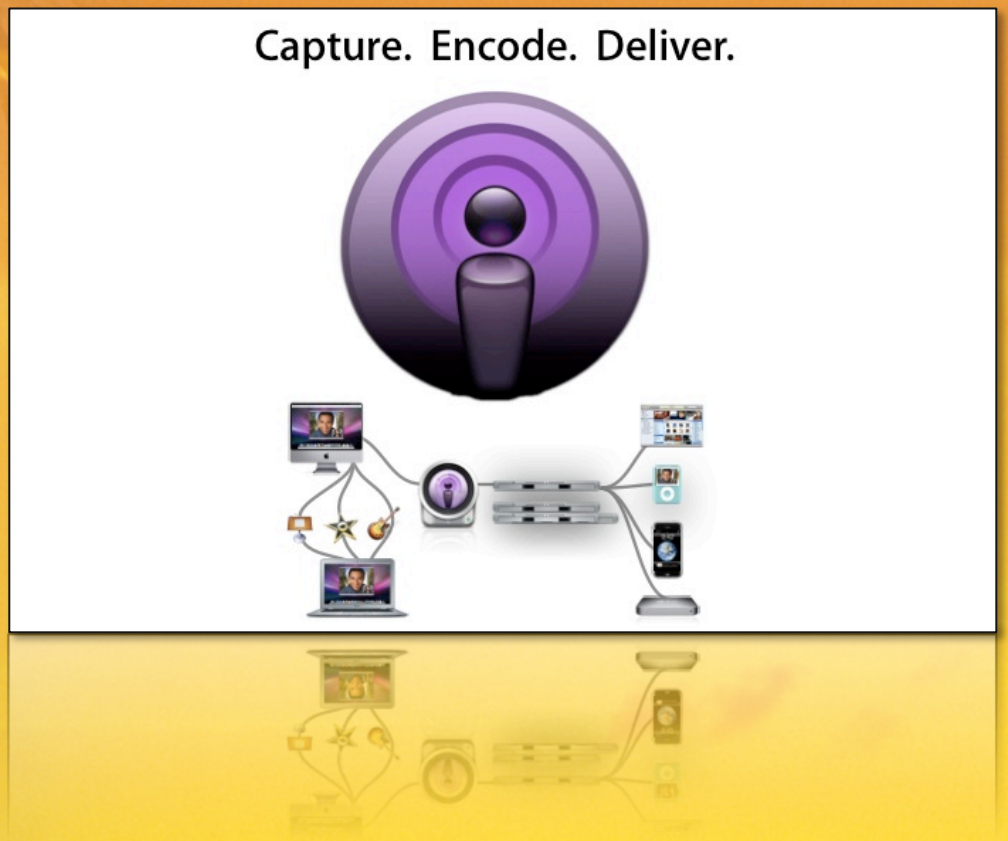
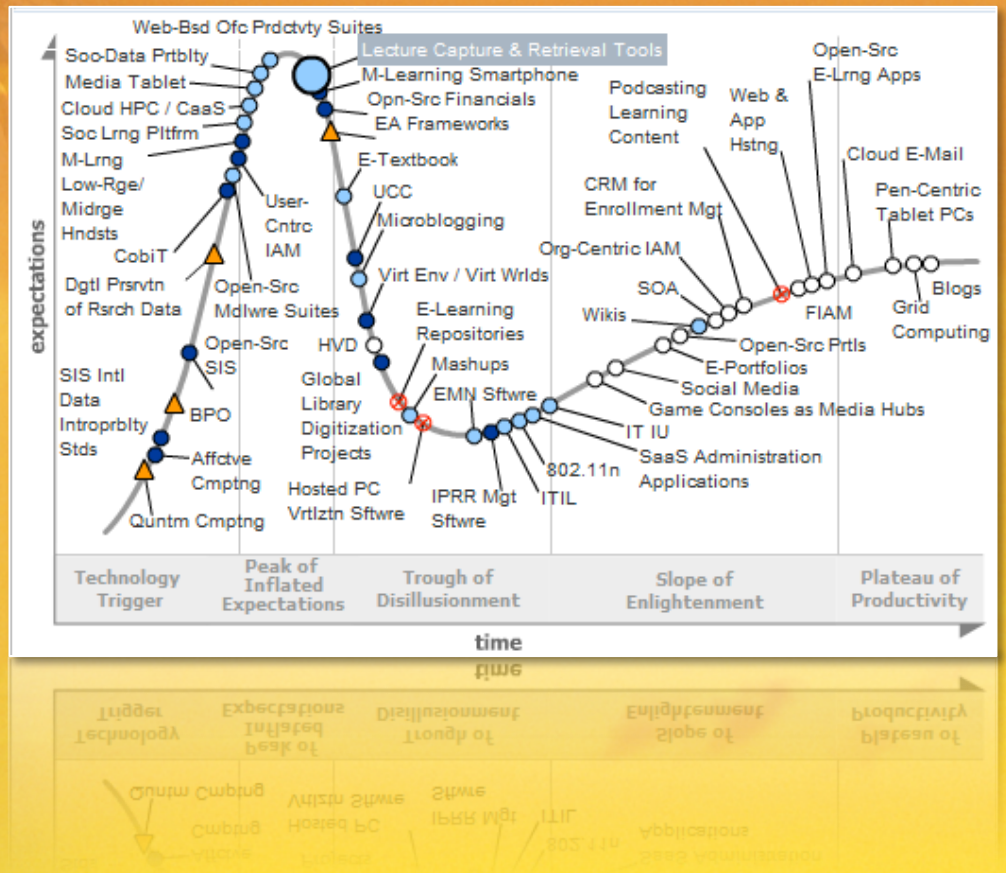


Illustration by Arthur Giron – Campus Technology

Lecture Capture: Technical



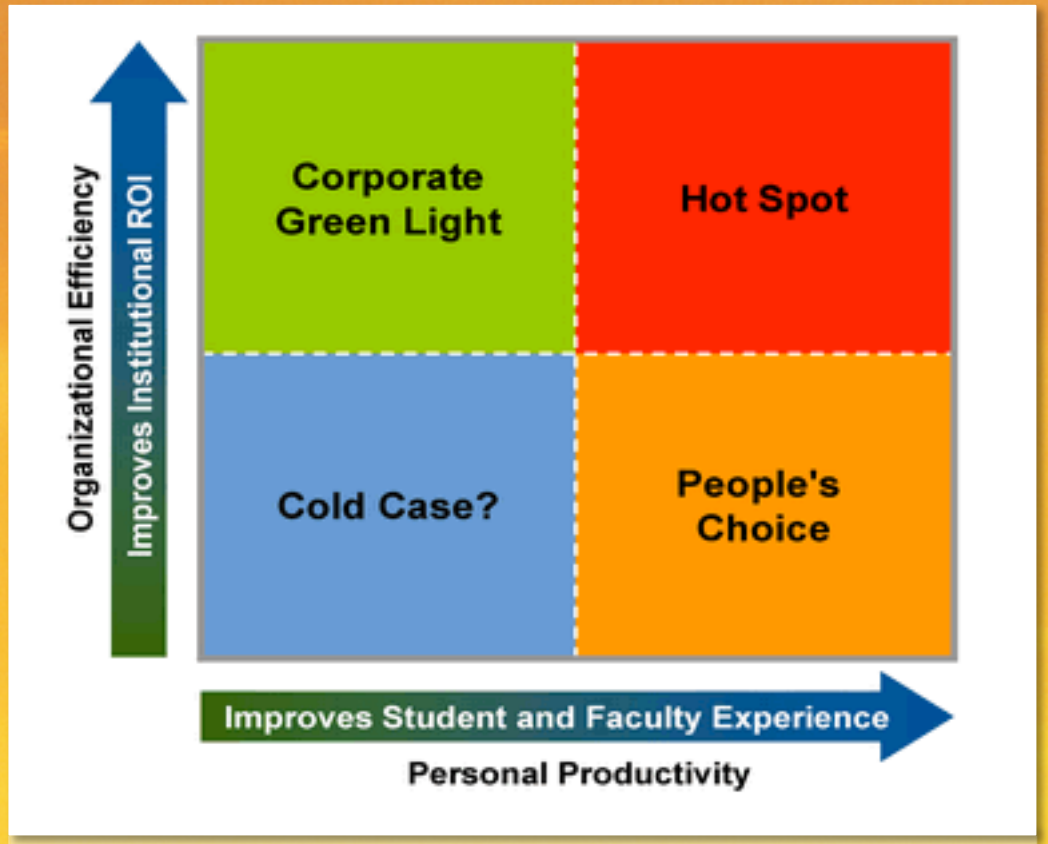
The Gartner Hype Cycle



Gartner - July, 2010

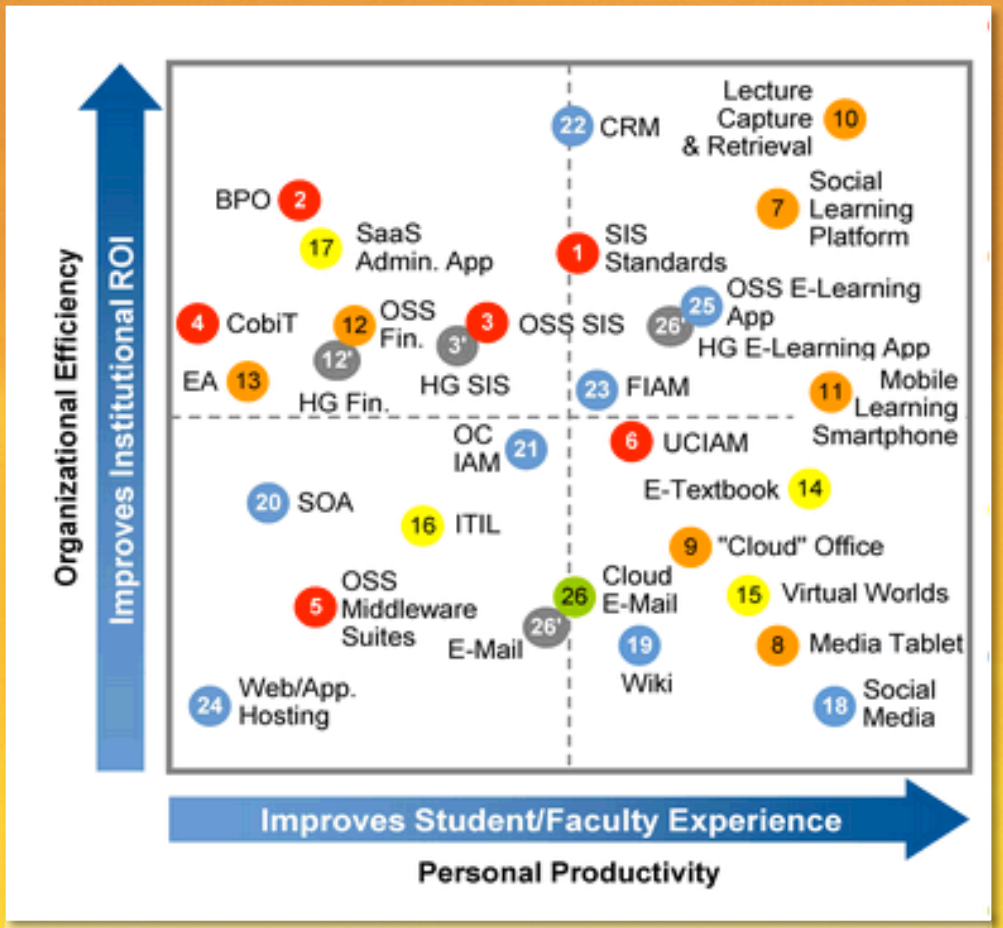
Lecture Capture: Financial

Gartner Strategic Technology Map

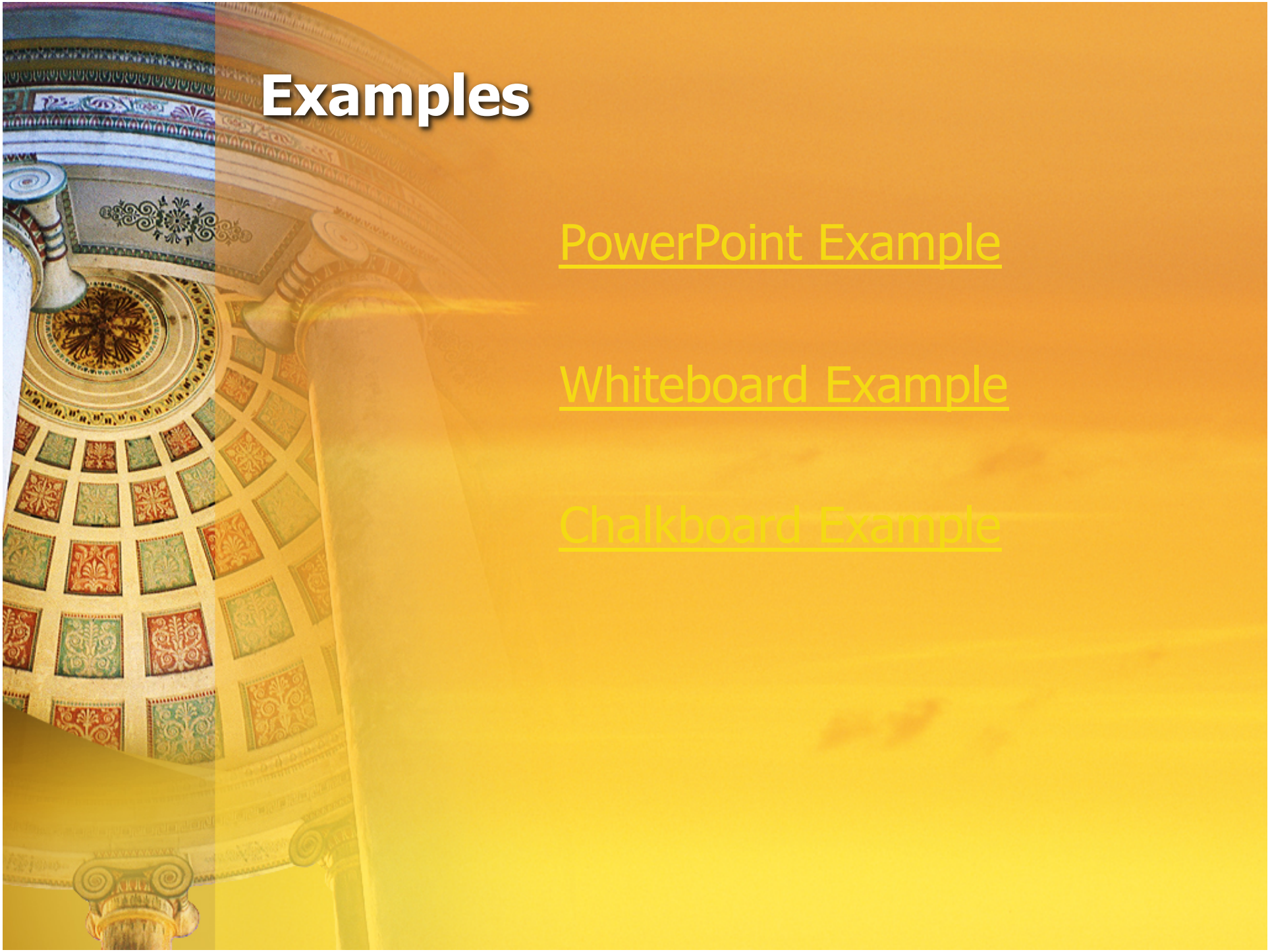


Gartner - September, 2010

Gartner Strategic Technology Map



Gartner - September, 2010

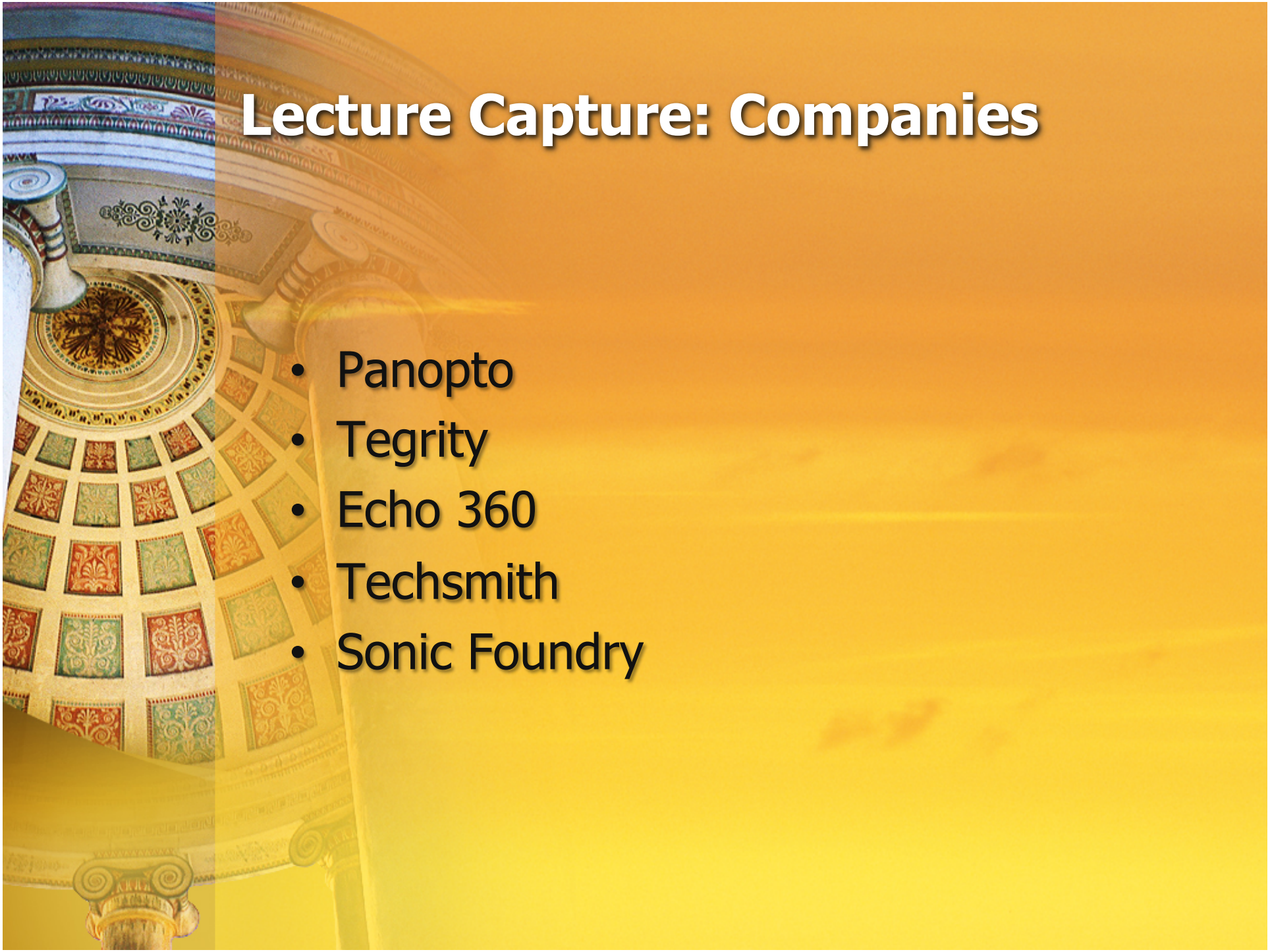


Examples

PowerPoint Example

Whiteboard Example

Chalkboard Example

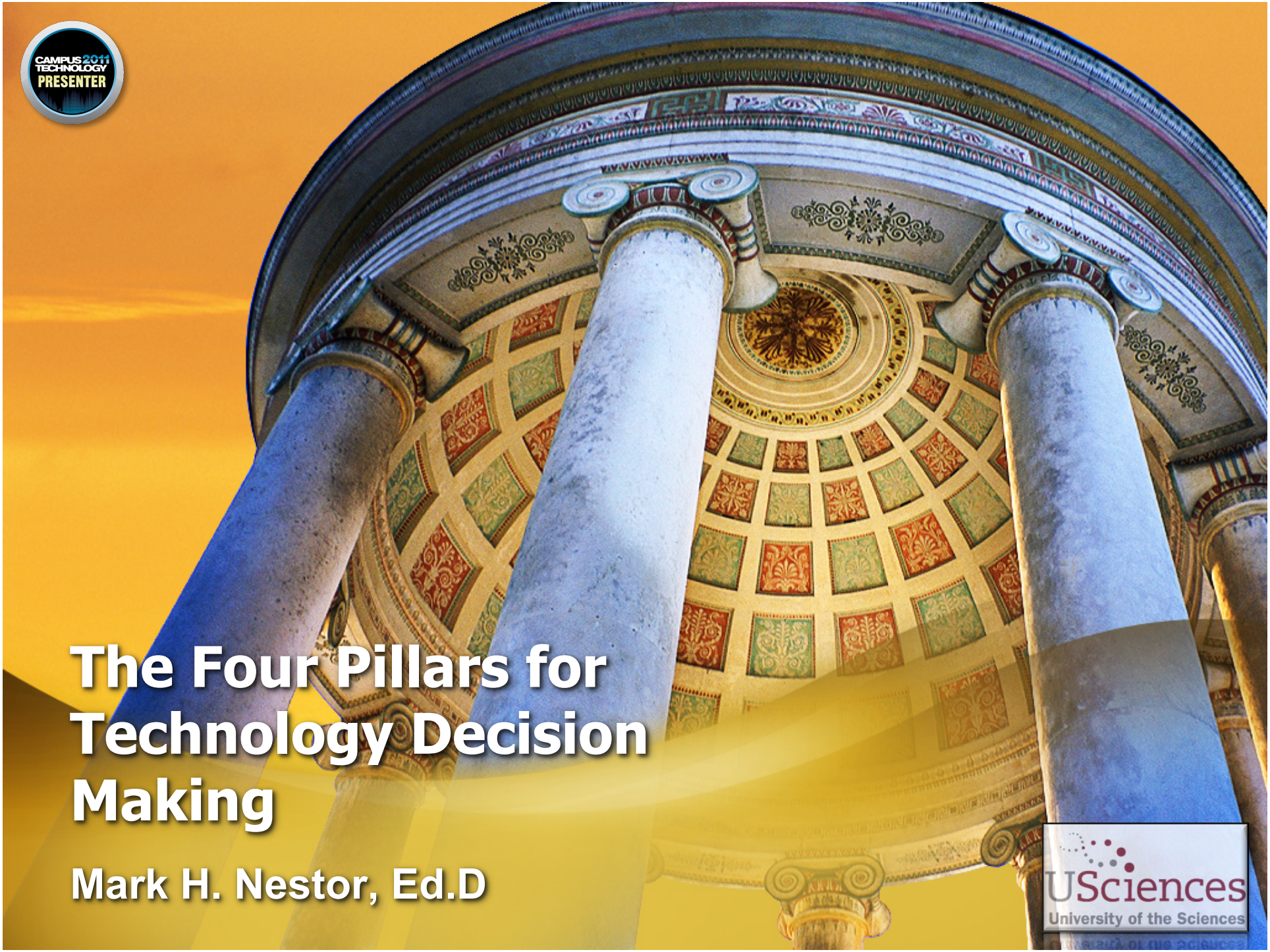


Lecture Capture: Companies

- Panopto
- Tegrity
- Echo 360
- Techsmith
- Sonic Foundry

Questions?

Mark H. Nestor, Ed.D.
m.nestor@usciences.edu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