

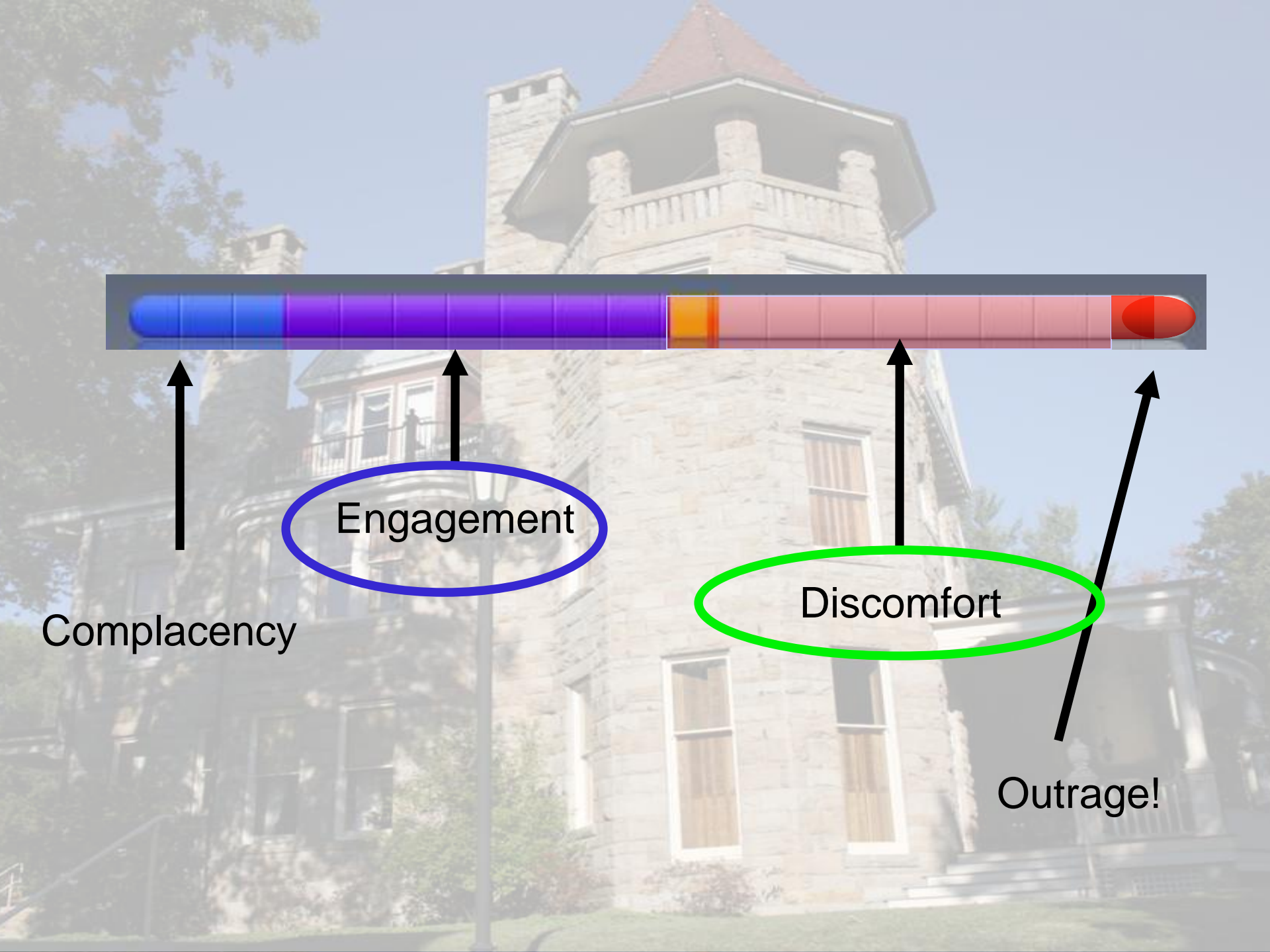
A large, multi-story stone building with a prominent tower and a porch, set against a clear blue sky. The building is constructed of light-colored stone blocks and features several windows with white frames. A black metal railing is visible on a balcony on the left side. A black street lamp stands in the foreground. The building is surrounded by green grass and trees.

21st Century Learning

Tom Welch
WVFLTA
September 24, 2010

Some "Givens"

- I'm all about learning.
 - It's the coolest thing on the planet!
- We are on the verge of a Golden Age of Learning
- We are on the verge of a Golden Age of Teaching
- The roles of teachers is about to change dramatically
- Everything is an opportunity to learn
- Geography must no longer be allowed to determine a student's ability to learn at the highest levels.
- One-to-many will be replaced by many-to-many



Complacency



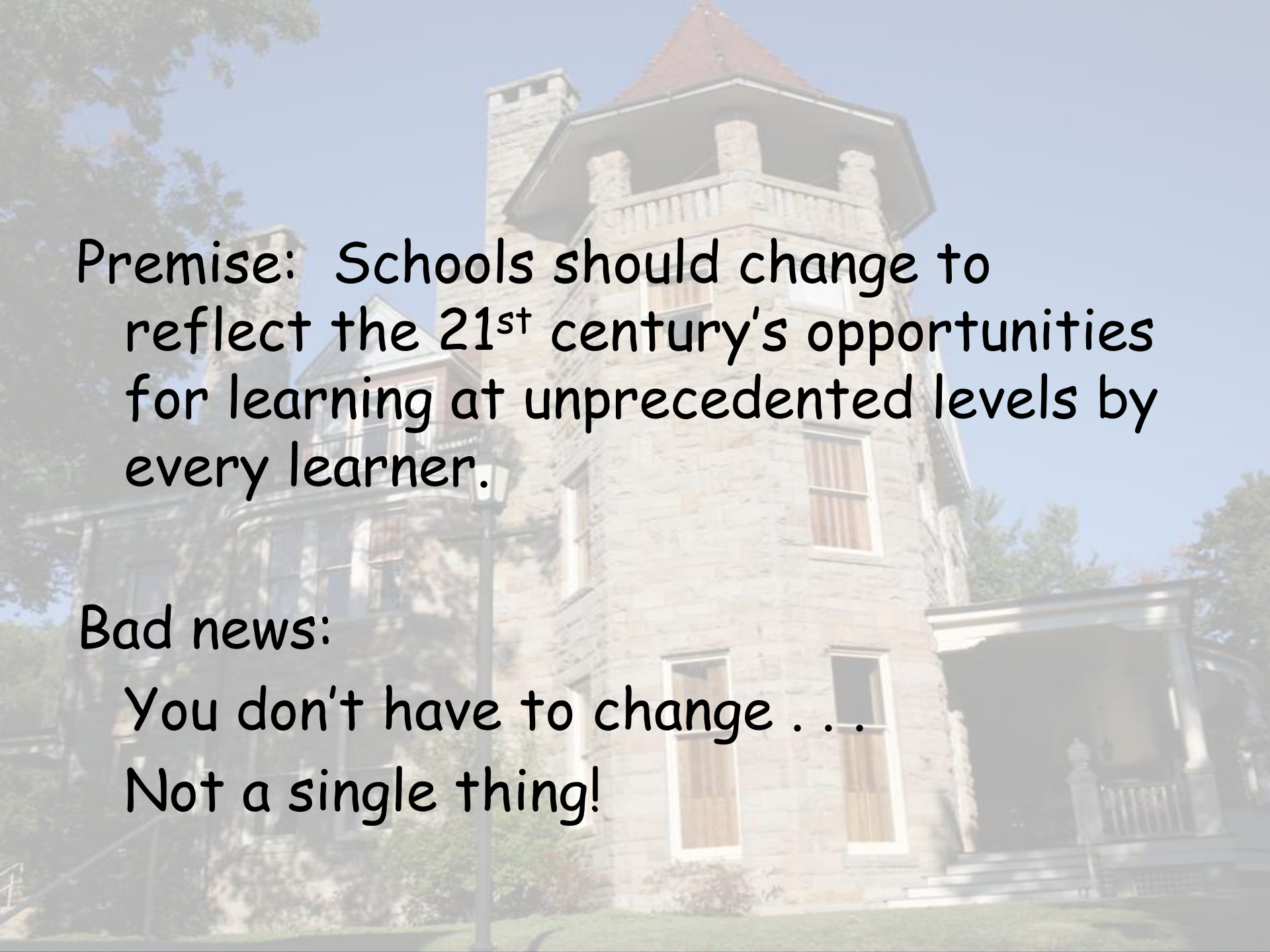
Engagement



Discomfort



Outrage!


A large, multi-story stone building with a prominent tower and a porch, set against a clear blue sky. The building is constructed of light-colored stone and features a central tower with a red roof and a balcony. There are several windows with white frames and a porch on the right side. The building is surrounded by greenery and a lawn.

Premise: Schools should change to reflect the 21st century's opportunities for learning at unprecedented levels by every learner.

Bad news:

You don't have to change . . .

Not a single thing!

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Essential Question

What would a 21st C Learning Environment look like?

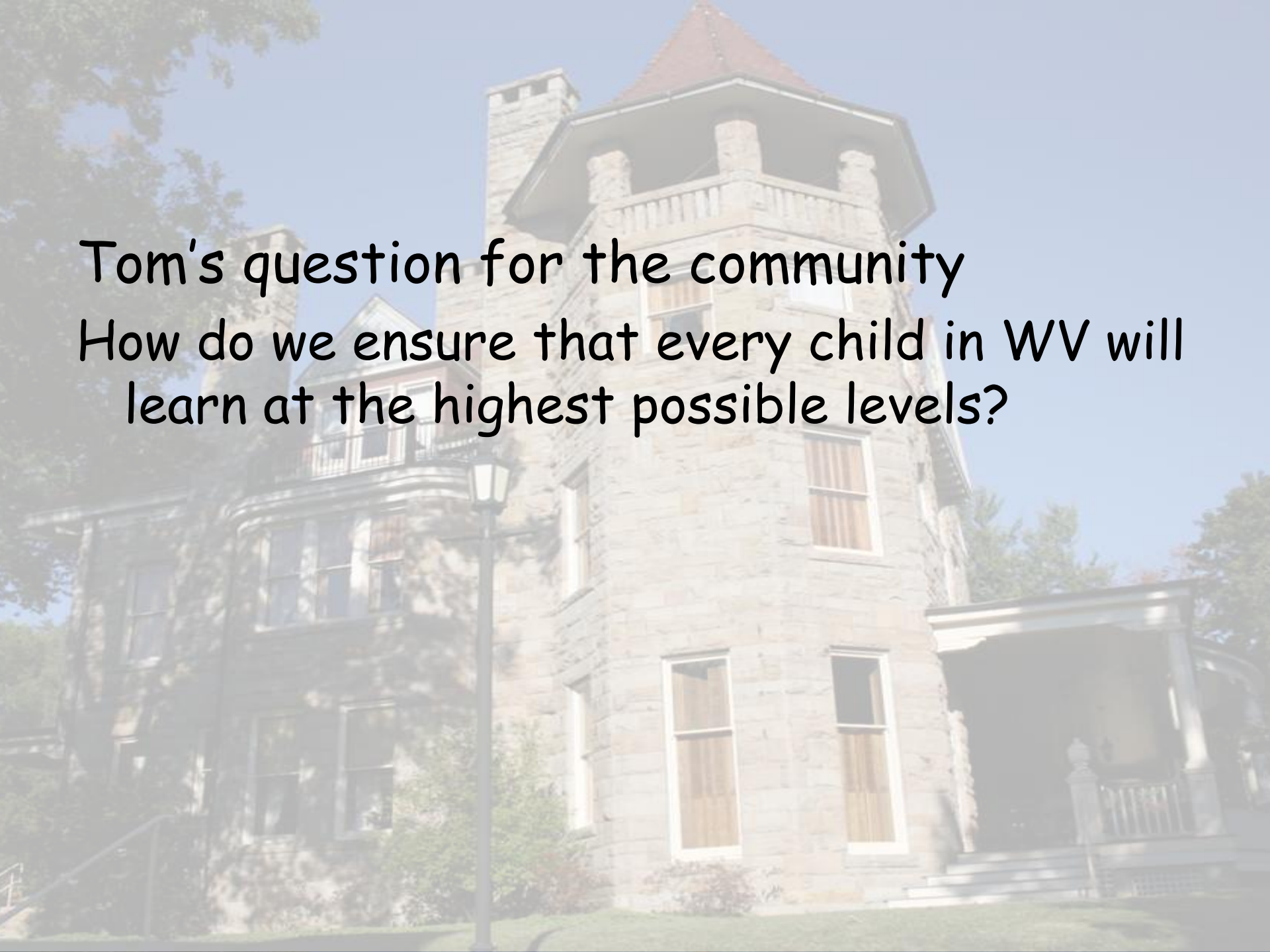
How might it appear?

Possible strategies

Mandate it

Hope for it

Let it go "viral"

A large, multi-story stone building with a prominent tower and a porch, set against a clear blue sky. The building is constructed of light-colored stone and features a prominent tower with a red roof and a balcony. The porch is covered and supported by columns. The building is surrounded by greenery and a clear blue sky.

Tom's question for the community
How do we ensure that every child in WV will
learn at the highest possible levels?

A large, multi-story stone building with a prominent tower and a porch. The building is constructed of light-colored stone blocks and features a red-tiled roof. The tower has a balcony with a stone railing. The porch is supported by columns and has a decorative railing. The building is surrounded by greenery and a clear blue sky.

Look back
Look around
Look ahead

A large, multi-story stone building with a prominent tower and a balcony, set against a clear blue sky. The building is constructed of light-colored stone and features a red-tiled roof. The tower has a balcony with a stone railing. The building is surrounded by greenery and a lawn.

Look back

- Our focus has been on creating good schools and good teachers
- Primacy of school re[form] as a strategy
- Recognition that schools were not “doing the job” that we wanted them to do.
- Unacceptable and unchanging dropout rate
- Criticism from the community

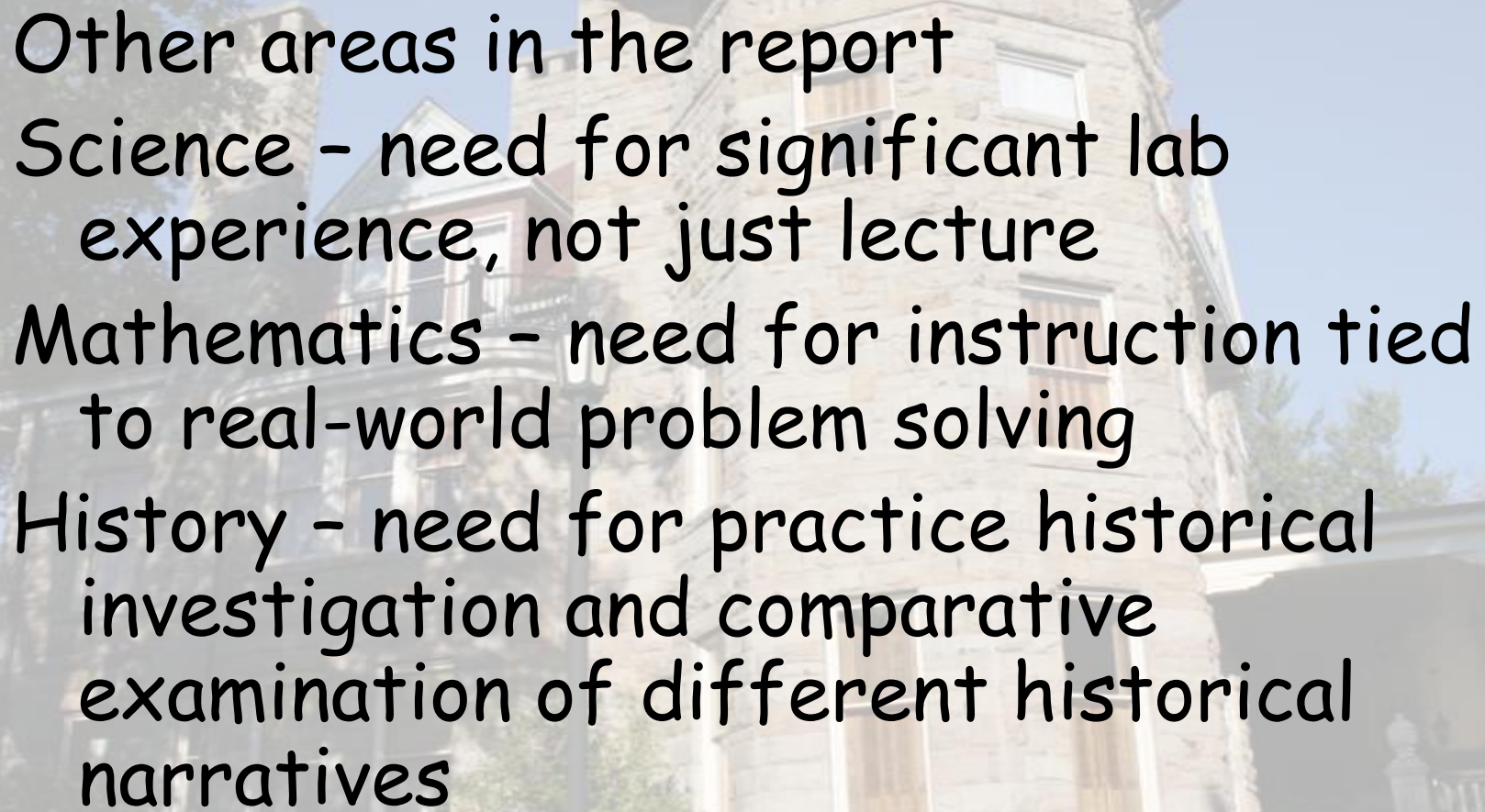
Recommendation Highlights

The C.T. Report

Scaffolding for success: "It is important to have [an articulated curriculum] with concepts taught at the secondary level introduced in primary schools."

World Languages: "The study of foreign languages [should] begin at a much earlier age than now."

Mathematics: "Elementary schools [need to include] not only a general survey of arithmetic, but also the elements of algebra and concrete geometry."



Other areas in the report

- Science - need for significant lab experience, not just lecture
- Mathematics - need for instruction tied to real-world problem solving
- History - need for practice historical investigation and comparative examination of different historical narratives

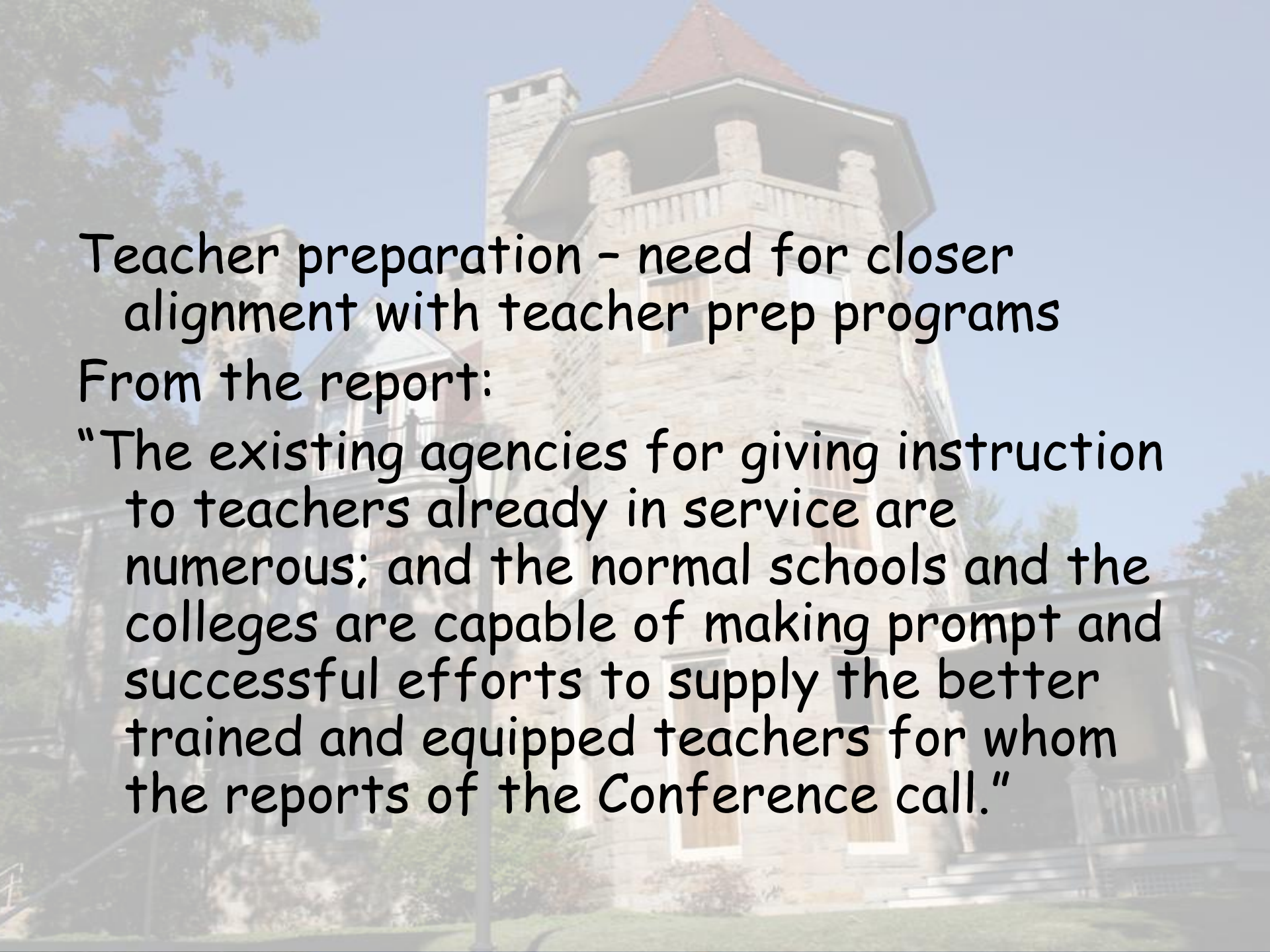


English - writing across the curriculum

Other areas addressed

Need for content reinforcement across disciplines

Specific attention paid to the concept that the levels of rigor be the same for every student, college-bound or work-force ready



Teacher preparation - need for closer alignment with teacher prep programs

From the report:

"The existing agencies for giving instruction to teachers already in service are numerous; and the normal schools and the colleges are capable of making prompt and successful efforts to supply the better trained and equipped teachers for whom the reports of the Conference call."



"...normal schools...?"

Hey, wait a minute!

CT?

The Committee of Ten

(1892-1893)

A large, multi-story stone building with a prominent tower and a porch, set against a clear blue sky. The building features a central tower with a red roof and a balcony, and a large porch on the right side. The text is overlaid on the left side of the image.

What that tells us

- The need for “school improvement” is older than anyone’s “good old days”
- Many recommendations debated today have been debated for more than a century
- Implementation barriers have not changed




Choice

Continue debating the same issues and
the same solutions (with different
names and different researchers)

Or

Step back and take another look




1892

Need for mass education (but not universal success in it)

Need to provide student access to the best available content resources

(teachers, materials)

Conclusion - SCHOOL!

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*See Malcolm Gladwell's *Outliers* for insight into the impact of seasonally-based agriculture and the link to higher achievement by Asian students



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Look Around

What are current and future trends and what are their implications for learning and teaching?



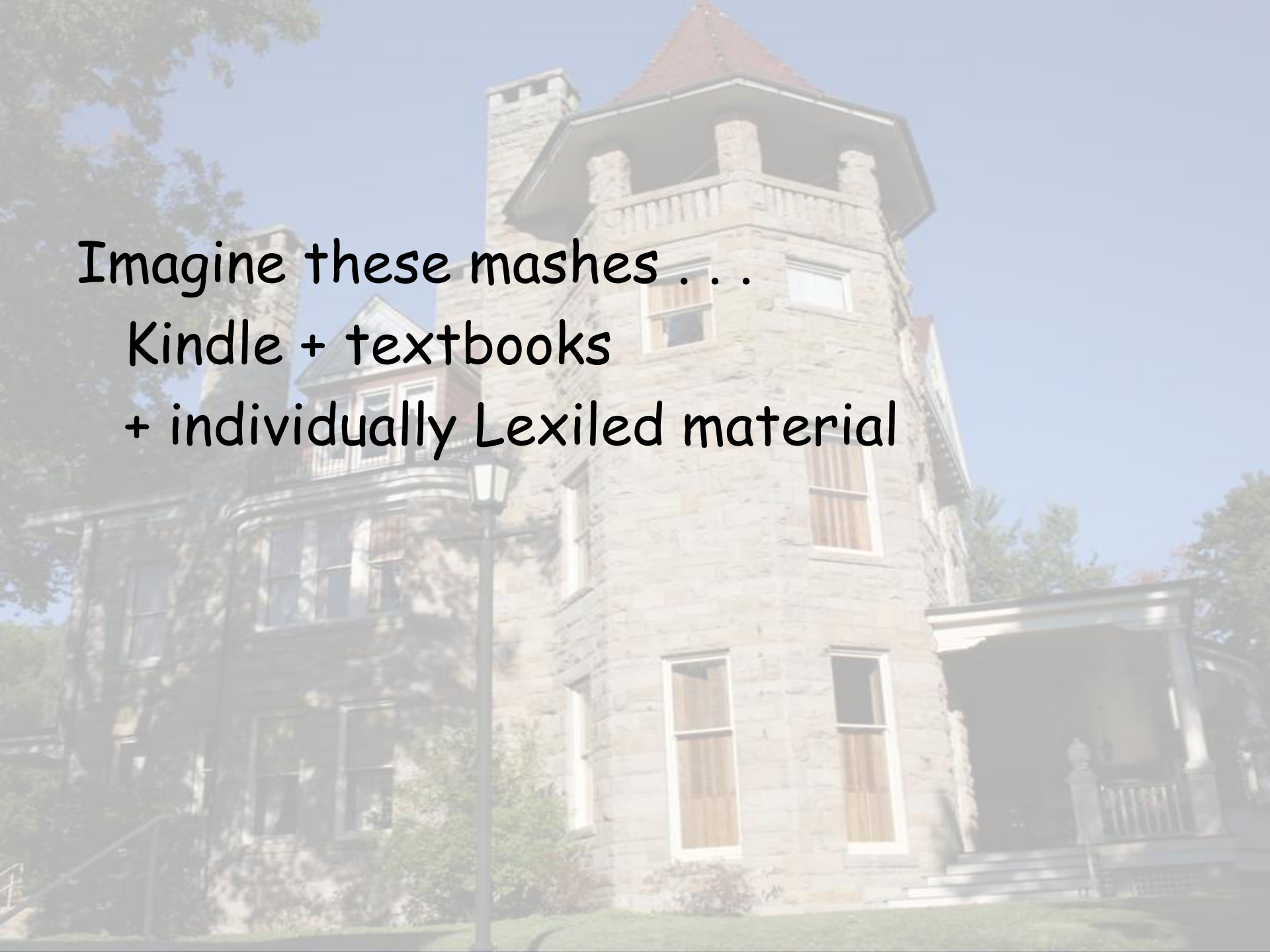
A few promising resources

Ubiquitous access

smart phones

cloud computing

Burgeoning software in every area

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Imagine these mashes . . .
Kindle + textbooks
+ individually Lexiled material

A large, multi-story stone building with a prominent octagonal tower and a porch, set against a clear blue sky. The building is constructed of light-colored stone blocks and features several windows with white frames. The octagonal tower has a balcony with a wooden railing. A porch with a dark roof and white columns is visible on the right side of the building. The building is surrounded by green grass and trees.

Think about iPhones and iPhone apps

What iPhone apps do you know of that could be useful to students and teachers?



Have you heard about ...?

Photosynth

<http://www.youtube.com/watch?v=s-DqZ8jAmv0>

Tag Galaxy

<http://taggalaxy.de/>

Project Natal

<http://www.youtube.com/watch?v=p2qlHoxPioM&feature=fvst>



What emerging technologies have you heard about that will have enormous implications for our profession?

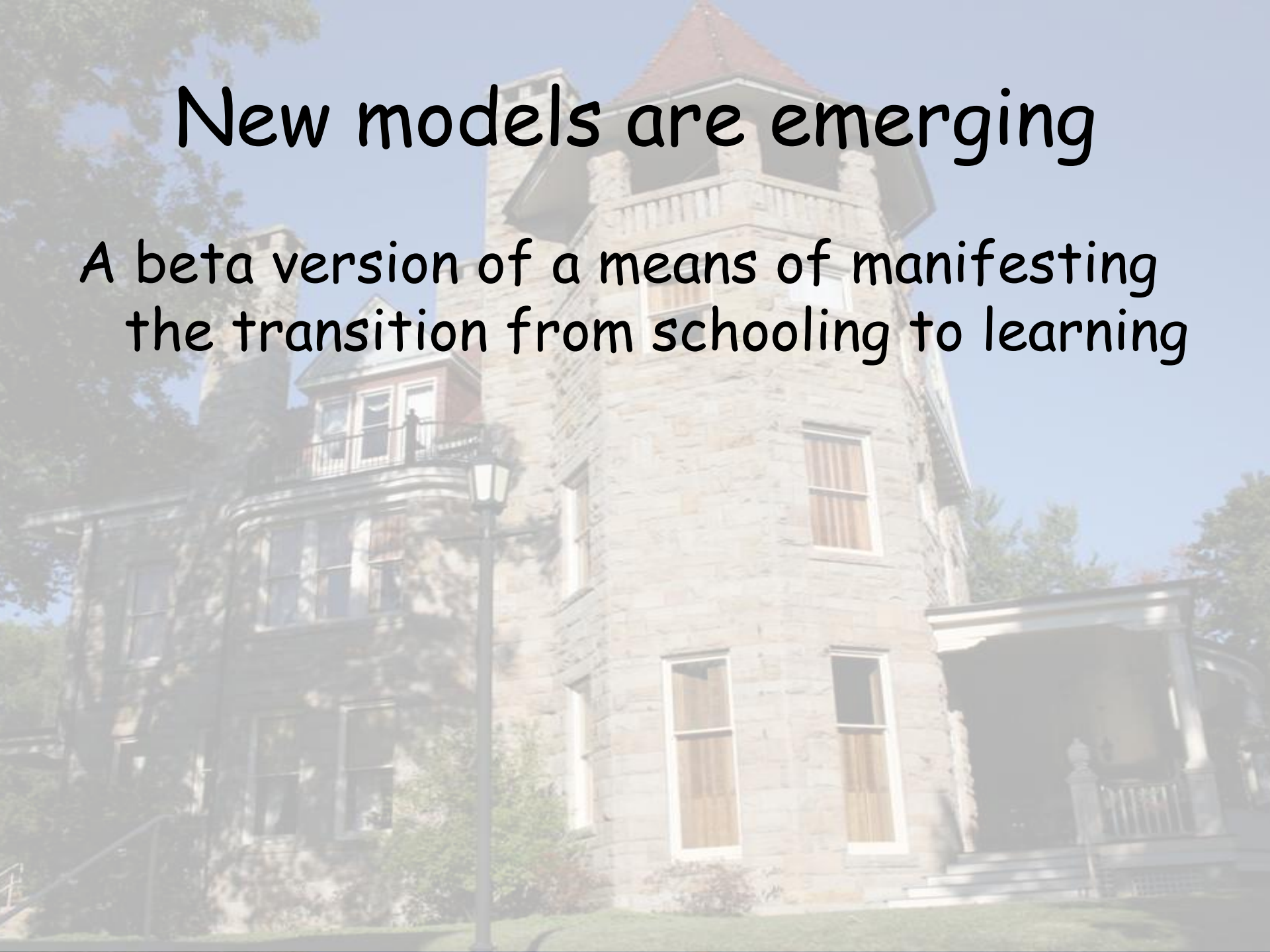
Don't forget Video Gaming

See today's *USA Today* article on Shawn Fanning and "Rupture"

http://www.usatoday.com/tech/gaming/2009-06-22-fanning-rupture_N.htm


New models are emerging

A beta version of a means of manifesting
the transition from schooling to learning




The Virtual Learning Magnet

- Under the auspices of CCSSO
- Interest-driven curriculum
- Initial funding from NASA
- POC Physics course
 - (not "grade" related)
 - 50 students
 - 8 states, DC, 2 from France
- Performance-based
- Nonlinear course design

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Aha's!

- The magnetic nature
 - The Smithsonian example
- Expandable
 - Horizontally
 - Vertically
 - Spatially
 - Geographically

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Conclusion: We now have the ability to "mass customize" the learning experience for every individual learner.

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2 lessons from *What Would Google Do?*
By Jeff Jarvis

1. Do what you do best - and outsource the rest.
2. The age of the middleman is dead.

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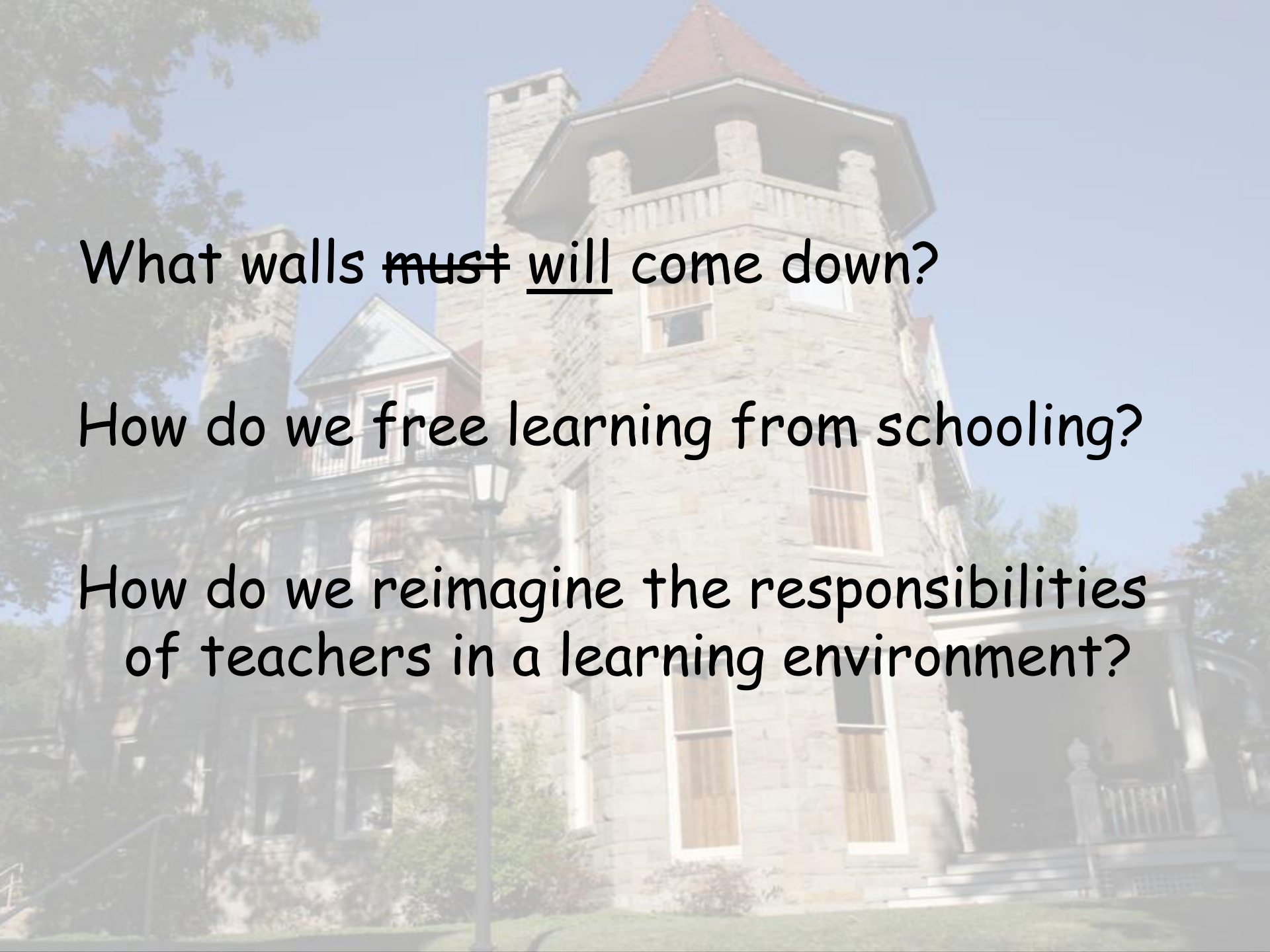
So What?

What are the implications?

For subject areas?

For accreditation?

For teachers

A large, multi-story stone building with a prominent tower and a balcony, set against a clear blue sky. The building is constructed of light-colored stone and features a prominent tower with a balcony on the upper floor. The tower has a red roof and a small window. The building is surrounded by greenery and a clear blue sky.

What walls ~~must~~ will come down?

How do we free learning from schooling?

How do we reimagine the responsibilities of teachers in a learning environment?



As you consider changes needed to the system . . .

Don't be naïve

Identifying and focusing on traditional leverage points has not been effective.

Lesson from Gladwell's "How David Beats Goliath"

http://www.newyorker.com/reporting/2009/05/11/090511fa_fact_gladwell



Good news:

We CAN bring about change . . .

“The future's ours . . . IF we can FREE it!”

- from *A Tale of Two Cities* - the Broadway production