Consortium for Research Practices

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Introductory Meeting
Minneapolis, January 10, 2013
did you know?
The AIA’S GOAL is to reach net zero carbon emissions by **2030**
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...the means to achieve this are not currently understood.

We have 17 years to discover, **and implement**, what it takes to reach this goal.
did you know?
The globe has warmed $1.2^\circ F$ from pre-industrial levels.
“we will be producing a different planet.”

-NASA scientist James Hansen, forefront leader of American climate researchers

The globe has warmed $1.2^\circ F$ from pre-industrial levels.

2012 was the warmest year and 2nd most extreme on record in the US.

NASA scientists predict further warming of $3.6$ to $7.2^\circ F$, creating an entirely new planet.

"I think we have a very brief window of opportunity to deal with climate change... no longer than a decade, at the most"

-NASA scientist James Hansen

The globe has warmed 1.2°F from pre-industrial levels.

NASA scientists predict further warming of 3.6 to 7.2°F, creating an entirely new planet.

To avoid this, we have less than 5 years to enact change.

Source: “Warming expert: Only decade left to act in time” MSNBC.com
did you know?
Energy consumption is measured in “Quads” (Quadrillion Btus)

One Quad = 40 large nuclear power plants
did you know?

The world uses approximately 400 Quads of energy annually.

400 Quads = 16,000 large nuclear power plants
The world uses approximately 400 Quads of energy annually.

The United States alone uses approximately 100 Quads of energy annually.
did you know?

The world uses approximately 400 Quads of energy annually.

The United States alone uses approximately 100 Quads of energy annually.

Of that 100 quads, 48% is from buildings.
did you know?
The United States construction industry spends $650 billion annually.

Source: New Wiring, The Economist, January 13, 2000
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Inefficiencies, mistakes and delays account for $200 billion annually.

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$15.8 billion annually is lost due to lack of interoperability.

Source: New Wiring, The Economist, January 13, 2000
did you know?
The construction industry lost productivity between 1964 and 2004.
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...while all other non-farm industries more than doubled.
did you know?
If you draw a curve showing where the majority of design activities occur...
If you draw a curve showing where the majority of design activities occur...

...they are too late to optimize cost savings
did you know?
did you know?

the design and construction cost of a building...
the design and construction cost of a building...

....account for only 25% of its total life cycle cost

*reducing the remaining 75% could yield the largest untapped savings in the AEC industry*
did you know?
most disaster-related, fracture-critical failures could have been avoided with better design?
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... and the cost of Super Storm Sandy exceeds $42 billion

Source: Designing to Avoid Disaster, Tom Fisher, 2012
did you know?
It takes an average of 8.5 years after graduation to become a licensed architect?
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which means, in real time, its a 14.5 year path...

which is longer than law or medicine
do you think...

the value proposition in the AEC industry needs to change?
do you think...

the value proposition in the AEC industry needs to change? architects need to show the value of design?
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architects need to show the value of design?
arhitectural education is at a cross road?
do you think...

the value proposition in the AEC industry needs to change?
architects need to show the value of design?
architectural education is at a cross road?
the next generation of architect leaders can thrive?
students, ask yourselves...

Is my education equipping me to play a role in the future of the built environment?
students, ask yourselves...

Is my education equipping me to play a role in the future of the built environment?

Do I have the willingness to take on large, messy, complex problems?
faculty, ask yourselves...
faculty, ask yourselves...

Am I instilling the passion for lateral, creative thinking— in other words, design?
 faculty, ask yourselves...

Am I instilling the passion for lateral, creative thinking— in other words, design?

Am I inspiring my students to ask questions that I could never imagine?
AEC firms, ask yourselves...

Is my firm going to be part of the solution?
AEC firms, ask yourselves...

Is my firm going to be part of the solution?

Do we have the willingness to be a collaborative partner in this consortium?
What if...

...there was a way for recent graduates to have a focused, structured path to licensure?
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...and that path included substantive leadership in areas of research linking faculty expertise with firm needs?

...and a consortium of firms collaborated with a school to create...
Consortium for Research Practices
Consortium for Research Practices and Master of Science in Architecture, Research Practices
Consortium for Research Practices and Master of Science in Architecture, Research Practices at the School of Architecture University of Minnesota

http://rp.design.umn.edu