Education...
Where Are We?
Where Should We Be?

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Executive Director, buildingSMART alliance
Member of buildingSMART International Executive Committee
Alliance Sponsors

These are the Change Agents in the Facilities Industry.

Why Isn’t your group recognized here?

COBie Education Sponsor
<table>
<thead>
<tr>
<th>Country</th>
<th>ROI Percentage</th>
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<tbody>
<tr>
<td>Japan</td>
<td>97%</td>
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<tr>
<td>Germany</td>
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<tr>
<td>France</td>
<td>97%</td>
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<tr>
<td>Canada</td>
<td>87%</td>
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<tr>
<td>Brazil</td>
<td>85%</td>
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<td>Aus/NZ</td>
<td>78%</td>
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<td>US</td>
<td>74%</td>
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<td>UK</td>
<td>59%</td>
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<tr>
<td>South Korea</td>
<td>48%</td>
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High Performance Building
30 Stories – 15 Days

- Survives 9.0 magnitude earthquake
- 4 panel insulated windows
- Smart heat conservation system
- Automatic solar and sun shades
- Air is 20 times as pure as outside
- Air quality monitored in each room
- LED lighting
Our Success is Based on Benefit to Owner

- **Broad Construction Hotel Project**
  - 330 rooms delivered in 15 days
    - Assuming factory in production mode and not one off production
  - Normal delivery 570 days (19 months from contract to occupancy)
    - $570 - $15 = 555 x $100 / per room = $55,500 per room x 330 = $18,315,000 !

- Also, consider the cost of money for 15 days vs. 19-24 months.

- Value based on our ability to capture the **hearts** and **pocketbooks** of **owners**

- If you have not seen the video - Google – **30 stories 15 days China**
My Vision

1. Lifecycle BIM – Information Flows
   - Information flows from inception onward
   - Data is truly entered one time
   - Transactional approach resolves ownership and trust issues using metadata

2. Operational Pull
   - Owner wants information rich facility
   - Architect/Design informs of opportunity
   - FM/Operations and Maintenance sees need

3. Comprehensive Lifecycle Costing
   - Accurate information available about manufactured and built up products
   - Supports decision making
     - Initial Cost
     - Long term costs – maintenance & replacement
     - Supporting attributes – Carbon footprint, Sound attenuation, Recyclable, Environmental safety, Etc.
1. Collaborative Education

- Owners (CEO, CFO, COO)
- Owners Representatives
- Architect
- Engineers
- Contractors
- Facility Managers
- Insurance
- Legal
- Contract law
Our History of Involving Education

1. 2007 (Dec) – A few presentations
2. 2008 (Dec) – Dr. Issa Survey – 93 responses
3. 2009 (Dec) – Sessions throughout week
4. 2010 (Dec) – Sessions throughout week*
5. 2011 (Dec) – Sessions throughout week*
6. 2012 – No event in 2012
7. 2013 (Jan) – Dedicated day to education
8. 2014 (Jan) – Dedicated day to education

* Sessions translated into Chinese and published
Long History of Involving Education

National BIM Conference / Selected Academic Articles 2010-2011

ISSN 1004-8537 $20.00
Education Opportunity

- The difference between *Education* and Training
  - Vendors should provide training on how to use their product
  - Universities should educate
- Universities have the ability to *link to physical plant* offices
  - On the job opportunities for on-campus construction – limited opportunity
- Employers are looking for the schools who are turning out students that *don’t have to be re-educated* to do the job.
- What can this group do to help?
Where Are We With BIM Education?

• We **lack common job titles**
  – Hence no common outcomes
  – Cannot legitimately credential
  • We lack common KSA’s
  – Multiple uncoordinated certificates become meaningless to employers and employees are confused

• **Accrediting organizations** not yet on board
  – Unaccredited programs being offered

• **Hard to find instructors**

• Still doing **more training than education**
Where Should We Be With BIM Education?

- Propose to use the **Alliance Academic Interoperability Coalition** to coordinate
- Propose use of **Commercial Workforce Credentialing Council (CWCC)** approach
  - Identify funding to develop KSA’s – JTA schemes
  - Use ISO 17024 strategy for international acceptance
    - Separate schemes, education, testing and credentialing
Next Steps

• **Expand the membership** of the Academic Interoperability Coalition
  – Develop a list of schools teaching BIM courses
  – Develop a list of universities programs
    • A resource for students and employers
    • Can we implement a comment system similar to Amazon?
    • Students comment of perceived quality of the program

• **Develop a research compendium**
  – Charge for the use of the database?

• **Develop a set of KSA’s**
  – Need about $300k for project

• Determine where we put our resources…
  – Education
  – Training
  – Other
Discussion

- Do you agree with my statements?
- Do you feel we are where we should be?
- Where do you think we should be?
- Does this group have a value based role?
- Are we focused correctly?
- Should we be doing something different?
- Am I expecting too much?
- What should we do before next January?
- What should we do next January?
- Suggestions for resourcing...
Thank You

If I can be of further service please contact me:

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