Design Technology Leadership: People + Process + Profits

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BIM Manager – Gresham Smith | @RavClarenceWood

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Design Technology Leader – Shepley Bulfinch | @JessiePurcey

Ryan Cameron, AIA, EDAC
Digital Practice Leader – CMBA Architects | @rbcameron1
KEY LEARNING OBJECTIVES

Implement and manage Design Technology Leadership in your organization

Enhanced profitability and efficiency using automation and generative design

Design Leadership Mentoring: Serve the team with humble spirit

Strategies to maintain technological sanity during Covid-19
Gratitude and Thanks:

- Thank you to “Autodesk University” Team & “Janice Miller Kellerman” for shepherding us.
- Thank you “David Butts” for outstanding Mentorship!
- Thank you to our families, colleagues and Everyone part of this class for this opportunity to present our humble presentation.
About the speaker

Jess Purcell

- She/her
- Design Technology Manager, Shepley Bulfinch
- Multiple time speaker at BILT, AU.
- Data Analyst, Programmer, VR Mastermind, Maker
- PHX VR for Good member
- Dog mom
- Crazy plant lady
About the speaker

Ryan Baker Cameron, AIA

- Globally Recognized Thought Leader
- Digital Practice Leader, CMBA Architects
- Top Rated Sessions: AU14,15,17
- Speaker at RTC, BILTNA, HCD, ACBD.
- Keynote Speaker: AIA Iowa 2019 + ACBD 2019
- CEO of Architect Machines, LLC
- Book Worm
About the speaker

Ravi Wood

- Collaborator and Innovator.
- BIM Manager, Gresham Smith
- Top Rated class for BIM Management: AU 2019.
- Speaker at RICS IFMA Sweden 2016.
- Top Rated Speaker at Hong Kong BIM HKIBIM 2016.
- Speaker at AEC Next, NY Design Expo.
Technology!

Blending the right combination of people, process and profits. To get us started, The business of design is changing. You need to take it to the next level and create value that means something.
Our Mission Today

We want to help and guide all professionals around the world by challenging the status quo. We will do this by disrupting current business mindsets and introducing different paths for your organization to grow and expand into untapped markets.

In under an hour we want you, the viewer to walk away with at least one takeaway from each category as it relates to People, Processes and Profits. Ready to get started with us today? Let's go!
Leadership Balance that enhances employee engagement
Culture + Purpose “Make a Better World”
Career Opportunities and Path platform in place.

Adoption/Implementation?
Standards
Time for Learning

The right tools for technology staff
ROI Question
Use profits to invest in new innovation

The Three P’s

People

Process

Profits
Section Break – PART I
People
Digital Technology Leadership: People

Keep things simple.

Have Empathy.

Positivity: Take Challenges as Opportunities.

Doing things “The Right Way”.

Connect the People
3 C’s of Technology Leadership

Communicate  Collaborate  Commit
Companies should align their people, culture, structure and tasks with one another and with the digital environment so that the team can address the constantly changing landscape.

Build an explicit link between employee experience & value.

- Track personal development and engagement data
- Accurately predict outcomes based on decisions from data
- Attain value metrics based on agreed upon outcome
Digital Practice
Form task force around latest VR developments

Digital Practice
Form Advanced computer science task force.

Digital Practice
Talk more details about the things that Team B focuses on and are responsible for.

Digital Practice
Talk more details about the things that Team C focuses on and are responsible for.
How do you build and maintain the right team?
How do you define the skills you need?

What do I do?

Manage People
Mediate conversations and connect colleagues
Manage projects
Workflow Process Architect
Data Scientist
Data Analyst
UX Designer
Software developer
Application Support
Research and Development
Lecturer/teacher/public speaker

What are my skills?

Influencer
Good communicator
Patient
Empathetic
Responsible
Able to multitask
Can jump between big picture strategy and specific details
Critical thinking
Experienced in roll out processes
Good with math
Highly analytical
Creative problem solving
Attention to detail
Understanding audience, Great storyteller
Graphic eye
Learn quickly, self teacher...

...
How do you know what skills your people have?

- Michell
  - ✔ Running user group meetings
  - ✔ Managing a BIM model
  - ✔ Developing a program
- Bo
  - ✔ Running user group meetings
  - ✔ Managing a BIM model
  - ✔ Developing a program
- Sara
  - ✔ Running user group meetings
  - ✔ Managing a BIM model
  - ✔ Developing a program
  - + Previous experience in this project type

I need Michelle for this project

I need someone who has experience in…
How do you know what skills your people have?

### Employees Experience and Learning Interests

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Today’s Topic - RECAP

People
Identifies all the employees that could significantly affect external and internal software usage, behaviors, and satisfaction.

Process
Examines the relationships among these learning experiences and key training processes to reduce overlapping responsibilities and increase collaboration between process teams and customer experience teams.

Profits
Focus on number of licensed technology systems to improve the processes that will support the firm’s design goals.
What does a successful process look like?

Action,
Development,
Operations,
Practice,
Design,
Procedure,
Automation,
Progress,
Guidelines,
Measure,
Rules,
Techniques.
BIM ORGANIZATION PLANNING PROCEDURE
THE CHASM

Early Market

Innovators 2.5%
Early Adopters 13.5%

Whole Product Solution

Minimum feature sat

Mainstream Market

Early Majority 34%
Late Majority 34%
Laggards 16%

People Who Want Newest Things
People Who Complete Solutions and Convenience
DIGITAL CHALLENGES

- Limited Expertise
- Digital Capabilities
- Tactical Plans
- Digital Roadmaps
- Innovation
- DX Performance Scorecard
- Siloed DX Initiatives
- DX Organization Structure
- Outdated KPIs
01. Align on the Why
Define the business value of digital transformation.

02. Prepare for Culture Change
Put humans at the heart of digital transformation.

03. Start Small but Strategic
Jump-start digital transformation with an impactful, measurable initiative.

04. Map out Technology
Choose tech solutions that scale with your long-term strategy.

05. Seek out Partners & Expertise
Do more - and do it faster - with partners that share in your vision.

06. Gather Feedback & Refine
Be flexible, learn from experience, and adjust accordingly.

07. Scale & Transform
New ways to improve will emerge - embrace them!
SUCCESS METRICS

**FINANCIAL KPI**
- 40% of company capital budget allocation of DX initiatives by 2020
- 40% of DX innovation initiatives approved for implementation by 2020
- Companies spend 10% less per year on DX failure over 3 years

**BUSINESS KPI**
- 20% more profitable customers each year for 3 years
- Improve customer NPS score to positive 50/100 by 2019
- Increased customer interactions for 50% of non-profitable products within 1 year

**Operational KPI**
- 40% of company capital budget allocation of DX initiatives by 2020
- 40% of DX innovation initiatives approved for implementation by 2020
- Companies spend 10% less per year on DX failure over 3 years

**INNOVATION RATE**
- 40% of company capital budget allocation of DX initiatives by 2020
- 40% of DX innovation initiatives approved for implementation by 2020
- Companies spend 10% less per year on DX failure over 3 years

**CUSTOMER ADVOCACY**
- Platform strategies drive data-related IT investments to exceed 25% of total IT by 2019
- Platform-related revenue accounts for 10% increase in total revenue each year over 5 years.
- APIs reduce data acquisition and sharing costs by 50% over 3 years
- Increase the % of self healing process by 10% per year for three years

**DATA CAPITALISATION**
- Achieve 50% market share for target DX product or service by 2020
- Introduce 1 new DX product or service each year for the next 3 years
- Increase the % of self healing process by 10% per year for three years
- 50% of executive compensation tied to digital MBOs

**DIGITAL OPERATIONS**
- Achieve 50% market share for target DX product or service by 2020
- Introduce 1 new DX product or service each year for the next 3 years
- Increase the % of self healing process by 10% per year for three years
- 50% of executive compensation tied to digital MBOs

**WORK AND LABOUR SUPPLY**
- Percentage of on-demand, knowledge worker labor hour increase by 10%/year over 3 years.
- 10% of repetitive enterprise interactions are augmented by AI each year for 3 years.
Tracking Adoption

Software usage data can be used as a tool for tracking the success of the roll out of an initiative or process.
Tracking Adoption

Software usage data can be used as a tool for tracking the success of the roll out of an initiative or process.

- Tonic email adoption starts
- Reduced number of licenses renewed, “the bottleneck”
- Identify and meet with those who aren’t adopting
- Notify teams we will not be renewing as many licenses
- Goal set to renew significantly less licenses
Tracking Adoption

If the software company doesn't provide you with usage data, you might be able to find ways to get it yourself.
Tracking Adoption

Build data into the process wherever you can
GENERATIVE DESIGN

1. Daylight
2. Low Visual Distraction
3. Views to Outside
4. Adjacency Preference
5. Circulation
6. Work Styles
7. Low Acoustic Distraction
8. Low Density

Source: Autodesk https://www.autodesk.com/solutions/generative-design/architecture-engineering-construction
COST VS ENERGY OPTIMIZATION: COVETOOL
Selecting Cheapest Option for Energy Code Compliance

SOURCE: https://www.cove.tools/

<table>
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<tr>
<th>DAYLIGHT</th>
<th>GLASS</th>
<th>PV</th>
<th>ROOF</th>
<th>SET POINT</th>
<th>SHADING</th>
<th>SOLAR HOT WATER</th>
<th>SYSTEM</th>
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$91,875.00
10%
Cove.tool helps achieve higher productivity and reduces construction cost.

01 Automation
Reduces errors and dramatically increases the number of professionals able to use the software.

02 Speed
Most design decisions need to happen concurrently and in real time. Consultants take weeks to answer questions.

03 Data Driven Design
Data collection increases predictive and generative abilities of the platform.

04 Cost Optimization
Linking all decisions back to a common metric (cost) links together design, construction, and manufacturers.

SOURCE: https://www.cove.tools/
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Identifies all the employees that could significantly affect external and internal software usage, behaviors, and satisfaction.

**Process**
Examines the relationships among these learning experiences and key training processes to reduce overlapping responsibilities and increase collaboration between process teams and customer experience teams.

**Profits**
Focus on number of licensed technology systems to improve the processes that will support the firm’s design goals.
Section Break - PART III
Profits
Tracking Metrics of Success

What does something do for us? Knowing why can help us know if the metrics identified are right for making sure we meet the goals we set.

Ask the right Questions
- Why are we doing this?
- Who is the target audience?
- What does value look like?
- How will we know value is being delivered?

Metrics

Metrics

Metrics

Tracking
Embed data into the process to be able to track success
Example: Technology ROI Dashboard

<table>
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<tr>
<th>Time Period</th>
<th>Revenue</th>
<th>QoQ Growth of Revenue</th>
<th>Market Share</th>
<th>Depreciation value (divide by 12 to get year)</th>
<th>Relative Market Share</th>
<th>TCO (total cost ownership)</th>
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<td>$111.4K</td>
<td>-22.4%</td>
<td>11.1%</td>
<td>x/3</td>
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<td>43.6%</td>
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<td>73.7%</td>
<td>x/3</td>
<td>47.3%</td>
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Three Pillars

People
- Implement a better system for tracking professional talents (33%)

Process
- Start compiling a weekly “Office Highlights” newsletter to all team members (33%)

Profits
- Review software options for incoming license tracking (34%)

TOTAL
- Improve our document and information management procedures (100%)

33% + 33% + 34% = 100%
SWOT Analysis

**STRENGTH**
- Same day delivery within the city
- Urban core has 1 hour delivery expectancy
- High-quality products
- Trusted and high product sales exposure

**WEAKNESS**
- No monthly subscription option or scaled payment arrangement
- Inaccessible to a larger consumer audience
- Poorly optimized SEO

**OPPORTUNITY**
- Optimize current mobile app for responsiveness and built-in feedback
- SEO focus can help drive a great amount of traffic & improve online sales ranking

**THREAT**
- Can operate at a loss to drive away competition
- Costly state laws to oversee grocery delivery and accountability under review/evolution
- No monthly subscription option or scaled payment arrangement
- Inaccessible to a larger consumer audience
- Poorly optimized SEO
- Can operate at a loss to drive away competition
- Costly state laws to oversee grocery delivery and accountability under review/evolution
What does the future hold?