

CLASS ID AS466238

Design Technology Leadership: Standards and Processes on Autodesk Products

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Learning Objectives

- People: Design Leadership Mentoring: Serve the team with humble spirit.
- Process: Implement and manage Design Technology Leadership in your organization.
- Profits: Enhanced profitability and efficiency using automation and generative design.
- Pandemic: Strategies to maintain technological sanity during Covid-19.

Description

The class will highlight standards and best practices for design technology management across design firms. Firms using strategic collaboration get an enhanced return on investment (ROI) that enables them to reach and build pioneering success on the prowess of human capital. This class will showcase the processes involved in delivering the vision of firms' management to achieve digital leadership in the industry. Design leadership has multiple facets and can be summarized as The Three Ps: Projects, Processes, and People. Design leadership is at its best when it creates the best processes and standards across all projects by raising the people skills. This class will help hone and develop tomorrow's leaders to lead the change and pioneer digital leadership across firms.

Speakers

Ravi Wood is a world-renowned Subject Matter Expert (S.M.E) on Digital Design Leadership and Management of BIM projects across the USA, UK, Middle East, Canada, Mexico, Singapore, and India. He is a Licensed Architect from India and has completed a master's degree from Kansas State University USA and VNIT.

Ravi Wood is an Award-winning Guest Speaker at Autodesk University, Hong Kong BIM (HKIBIM), IFMA RICS Sweden, IFMA India, NY Design Expo, AEC Next, and several conferences across the USA, Europe, and Asia. Ravi Wood specializes in Digital Technology and BIM

Leadership across top firms and has completed more than 100 projects worth more than 150 million USD including Airports, Hospitals, Infrastructure, Stadiums, Residential, Commercial, and Retail.

His astute acumen and proven track record in Digital Technology Leadership has set new global Standards based on the premise of doing things “The Right Way”. His passion for innovative processes in Digital Technology continues to help transform “challenges to opportunity” and “problems to successful solutions”.

- Top Rated class for BIM Managers Autodesk University 2019.
- Speaker at Autodesk University 2020, 2019, 2017
- Top-Rated Speaker at Hong Kong BIM (HKIBIM) 2016.
- Top-Rated Speaker at RICS IFMA Stockholm Sweden 2017
- Top-Rated Speaker at IFMA India 2016
- Guest Speaker at AEC Next Los Angeles 2018 at
- Speaker at New York Design Expo 2018.
- Upcoming Lectures at various Ivy League School programs for Architecture across the USA.

Jess Purcell: As the Design Technology Manager for Shepley Bulfinch, Jess leads the development and implementation of new technologies and workflows for design, delivery, and collaboration. She also manages a small team of Design Technology Specialists. She has expertise in computational design, VR and visualizations, data analytics, and process automation. Jess holds a Master of Architecture from Arizona State University and is an active contributor and speaker in the AEC technology community.

Ryan Cameron: Ryan leads multiple teams for the successful development of architectural design projects while also helping to lead technology integration in practice. Ryan is leading digital design efforts at CMBA Architects that range in practice from data analysis, data strategy, parametric modeling, and data-driven design. He is evidence-based certified as well as a licensed architect in several states. Ryan possesses unique qualities to be a catalyst for change and adjusts the design technology trajectory of CMBA Architects to that of a leader among our peers and then maintains this position.

Ryan is a core advisor to CMBA's K12 Design Champion's Group as well as continually helps coach and support the firm's Design Technology Initiatives. Ryan is also an active member of CMBA's Healthcare Champions group and sub-committee "Research in Action".

Ryan is consistently ahead of the industry in the exploration and adoption of advantageous technologies applied to design and building. Many AEC peers at conferences such as RTC, HCD, BILT, ACBD, and Autodesk University include Ryan's long list of public presentations and innovative work has commonly been cited as representing the vanguard of critical directions for the industry. Ryan is more than an industry leader; he has reached tens of thousands of AEC professionals around the world with his vast technical skill and speaking opportunities.

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Design Technology Leadership

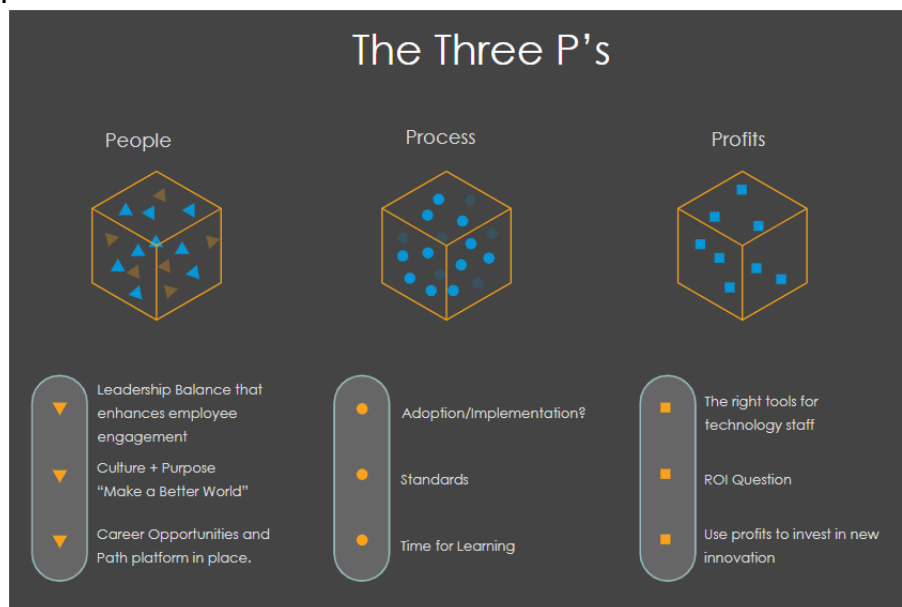
Design technology is the study, design, development, application, implementation, support, and management of computer and non-computer-based technologies for the express purpose of communicating product design intent and constructability. We are at the cusp of a technology revolution and the design and construction industry is adapting to the new pace in an ever-changing world. This change requires the Right people to shepherd and lead the community and industry in the right direction. Design Technology leadership thus becomes ever so critical to enhance the spaces that get designed for the future and help us all “Make a Better World” through Autodesk Products.

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.

The 3 P's

We want to highlight the 3P's: People, Process, and Profits. We want to highlight the importance of Leadership balance that enhances employee engagement. The ability to create the right culture and imbibe the sense of purpose of a shared vision to “Make a Better World”. We want to share the steps to create a platform to create and build the right team.



People come First.

The setting up of the Right processes helps make streamline the implementation and adoption of technology. The standards and training resources can help alleviate the productivity of the team and we walk through this process. Leadership can be a tightrope challenge and we want to highlight the ability to “Stay humble and do not fumble”. The critical aspect to stay current with research and Innovation is discussed and we discussed the way to go about making the time for learning.

At the end of the day, we are all in the business of making money and Profits. We shall help the listener to cultivate the skills to think like an investor of Innovation. The class walks through ways to deal with the Return of Investment (R.O.I.) question and how to master the ability to harness the best “Efficiency” and “Profitability” for the firm.

People

Ryan Cameron is reminded of the time when Bill Allen, CEO of Evolve-Lab, and I were just getting started in the industry, about a decade ago. He was giving a presentation; I was introducing him but before that, we were talking about the process. He talked about the people and how important they were to the process, not the other way around. So often we forget that if people don't ask for it, is it worth implementing? Know your people, folks. Ask them what they want. I see so many leaders today worried about their next promotion, their next ladder to climb, and how hard they worked to get Autodesk Dynamo, or Form It implemented. How much easier would it have been if they asked what their staff were concerned with?

Process

Develop digital skills for your people. During a research project for BILT North America, this summer Connor Gatzke and Ryan found that next-gen talent rank access to learning opportunities high in their set of priorities to stay at their company. Put in other terms: People need to grow professionally and want to craft their skills. And those that don't get that at their job, will leave sooner. You should also know what talent you want to cultivate. Your firm says we want to be leaders in additive manufacturing, VR/AR, computational design, have you provided the resources, education reimbursement? What makes it even worse, your firm now has competing business priorities by trying to take on too many internal goals. You've effectively created a series of barriers within the organization, further muddying the waters of your digital design vision. Start Less, Finish more by Dan Montgomery is a book I recommend.

Profits

Talking with the CTO of BIMBox computers, Ryan remembers this discussion at an AU a year or two back, Buck mentions: The goal of every CTO/CIO and IT Manager should be to provide their people with the best tools and support to execute on the work they must do. It's not to reduce the overhead or negotiate the best deal they can. It is supporting a company's workforce to execute on their brand promise. Improve their employee's productivity with technology and readily available support to ensure when a problem occurs it gets taken care of quickly.

Less mature companies don't utilize the skills and provide opportunities for their employees. They refer to learning as training. Employees are looking to work with digital leaders and firms that ARE digitally maturing and those that are NOT are at a distinct disadvantage. And those firms that aren't mature, lose their employees to ones that are truly digitally maturing.

Objective 1: People

People: Design Leadership Mentoring to Serve the team with Humble Spirit.

Life as in Design Technology is a Team Sport. Our mantra for Success has helped us devolve tough clients and scenarios into successful long-term trusted partners.

1. Keep things simple.
2. Have Empathy.
3. Positivity: Take Challenges as Opportunities.
4. Doing things “The Right Way”.
5. Connecting the People.

Digital Technology Leadership: People

Keep things simple.

Have Empathy.

Positivity: Take Challenges as Opportunities.

Connecting
People



Doing things “The Right Way”.

Connect the People

Building the Right Team

To build the right team, a leader must be able to attract, select, and form teams with diverse styles and perspectives, and foster productive, collaborative teamwork. The goal is to build a team in which every team member knows, understands, and is committed to the organization's success.

Build an explicit link between employee experience and value.

Create a link between what the person does and the value they create on projects and the design value they bring.



Build the Right Team

Technology Organization

(Ryan) When discussing design technology, I rarely think of the newest shiny tool that is out there or depending on the audience, start using words like automation or algorithm. That is not going to sell well to the people in charge and it's not going to help you build an audience. I think of words like resistance, transformation, acceptance. How would I crush this idea and say no to it? Grab a mentor and practice your pitch. It's great when you have a small group of followers at your firm developing these things, but is that the same group that is going to be doing the implementation? Step back and think, what is the digital maturity level of our people? Roll out often fails not because the tools aren't great, but it failed dlbecause it wasn't the right time, messaging, or level of understanding why the group wanted to roll out a new process in the first place. "That's great!" says some high-level executive, "I hope it works!", then walks away. It is easy to see that the full buy-in was not there. Without top-down and bottom-up support, the initiative is doomed to fail. What leadership often lacks is a level of digital competency. For our company CMBA, digital competency is a core skill leader must have to be promoted and focus on digitizing the business. Otherwise, we're relocated to the same old cycle of "seller/doer" mentality, when in fact the client didn't hire us for our cool personality or amazing portfolio but because we were the lowest fee. So, we're counter-acting that by establishing ourselves as the "go-to" experts.

Conceptual Technology Organization Chart



Technology Organization Chart

Communicate

Unsuccessful leaders tended to focus on the “what” behind the change. Successful leaders communicated the “what” and the “why.” Leaders who explained the purpose of the change and connected it to the organization’s values or explained the benefits created stronger buy-in and urgency for the change.

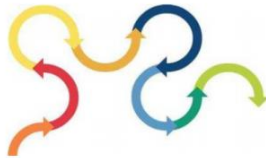
Collaborate

Bringing people together to plan and execute change is critical. Successful leaders worked across boundaries, encouraged employees to break out of their silos, and refused to tolerate unhealthy competition. They also included employees in decision making early on, strengthening their commitment to change. Unsuccessful change leaders failed to engage employees early and often in the change process.

Commit

Successful leaders made sure their own beliefs and behaviors supported the change, too. Change is difficult, but leaders who negotiated it successfully were resilient and persistent, and willing to step outside their comfort zone. They also devoted more of their own time to the change effort and focused on the big picture. Unsuccessful leaders failed to adapt to challenges, expressed negativity, and were impatient with a lack of results.

3 C's of Technology Leadership



Communicate



Collaborate



Commit

3 C's of Technology Leadership

Define Skill Set

Hiring internally is just as much of a challenge as hiring externally can be, especially when trying to fill niche roles, like design technology specialists, with folks who were hired for more traditional roles, like Architecture. In an exercise of trying to identify the skills needed for our staffing group, I (Jess) broke down what I do into specific roles and the necessary skills for each role. So, in the future, if we need a “data analyst” to support a space utilization project, we can ask staffing if we have a designer that is highly analytically, a good storyteller, can see the big picture, etc. I am simplifying skills here into traits because I can teach anyone who to manipulate data, or learn python, or any other tool, especially if they have the right mindset. And, as you can see in the following diagram (the arrows are highly edited down), there are a lot of overlapping skills when it comes to design technology. And that means if you can find someone who has the right mindset, it's not hard to develop them into what you need.

How do you define the skills you need?



Technology Skill Mapping

Skill Mapping

Identifying internal skills is something we've been looking at for a while now at Shepley Bulfinch. A couple of years ago we launched an initiative for "Baseball Cards." Each employee has their own Baseball Card, a form where they can self-identify the experience and skills they have, as well as what they want to learn. Each of these skills correlates to the request form for the staffing body. This requires PMs to be specific about what the project needs are without asking for a specific person and gives the staffing body the ability to properly fill that spot. This also allows new hires to advocate for themselves and their experience, putting them in roles that take advantage of their skill set faster than what used to take a year or more to understand what they're good at.

Some of the side benefits we discovered are we can use it to pair up folks who have identified as wanting to learn, with those who have identified as being experts. We can also see the skill makeup of the firm, different departments or practice groups, or even specific project teams.

How do you know what skills your people have?

Overall experience with the following Tools

9: No Experience 1: Need Guidance 2: Experienced 3: Can Teach Others 4: Would Like to Learn More

Revit ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 AutoCAD ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Navisworks ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 3D Rendering Software (Enscape, Unreal Engine) ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 BIM Modeling Software (BIM 360, Revit) ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Other (fill in the blank)

I have experience with...

Design Content and Execution ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Create original building design concepts ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Develop or expand upon building design concepts ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Execute directed changes of design concepts ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Develop Program Specialty (fill in the blank)
 Lead Space Planning Specialty (fill in the blank)
 Develop interior design schemes ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4

Management ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Lead Team (fill in the blank)
 Manage multiple projects teams concurrently ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Lead the following meetings ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Over-seeing ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 User ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Develop customer strategies ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Administer LEED certification process ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Perform building life analysis ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Select interior finishes ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Prepare final construction material ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Select and specify furniture ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4

Construction Administration ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Serve as contact for Contractor ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Review project cost estimates ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Review shop drawings, Specialty (fill in the blank)
 Respond to RFIs ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Perform field observation and create field report ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Perform punch walks ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4

Extended Services ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Perform site inspection ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Organize and analyze data ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4
 Use L20 methods and tools ☐ 9 ☐ 1 ☐ 2 ☐ 3 ☐ 4

Employees Experience and Learning Interests

(click "focus mode" for exportable list)

PreferredName	Exp	Learn?	Exp	Learn?	Exp	Learn?	Exp	Learn?	Exp	Learn?
Building Information Modeling (BIM)										
BIM: Create 3D families	1	1	1	2						
BIM: Manage BIM model	0	0	1	3						
BIM: Model & produce documents using 3D elements	2	1	1	2						
BIM: Perform 3D Consultant Coordination	1	0	1							
BIM: Perform advanced modeling	1	0	0	3	yes					
BIM: Pick Up red lines/comments	1	1	1	2						
Construction Administration										
CA: Perform field observation and create field report	2	1		0						
CA: Perform punch walks	2	1	1	0						
CA: Respond to RFIs	1	2	1	1						
CA: Review project cost estimates	1	2	1							
CA: Review shop drawings	2	1	1							
CA: Serve as contact for Contractor	3	2	1	1	yes					
Design Content and Execution										
Design Content: Create original building design concepts	1	1	2						2	yes
Design Content: Develop interior design schemes	3	2	2					1	yes	
Design Content: Develop or expand upon building design concept	3	1	1					1	yes	
Design Content: Develop Program, Specialty	2	3	1					2	yes	
Design Content: Execute directed changes of design concepts	3	3	1					2	yes	
Design Content: Lead Space Planning, Specialty	1	1	1							
Documentation of Design and Ideas										
Documentation: Administer LEED certification process	0	yes	2	1						
Documentation: Coordinate or review specifications	2	2	1							
Documentation: Coordinate with consultants	1	2	1					1	yes	0
Documentation: Create 3D render images	1	2	0					1		2
Documentation: Detailing Exterior	2	1	1					1		
Documentation: Detailing Interior/ Fit-Out	2	1	1	2						
Documentation: Develop architectural cartoon set	1	2	1	2						
Documentation: Develop life safety documents	2	1	1	1						
Documentation: Develop or write specifications	0	1	1							

Technology Skill Tracker

Recap Summary

The paramount aspect of building a team is hiring the Right People with the Right Skills. Building a culture of learning where team members feel empowered and have the resources to succeed.

Variables of ROI



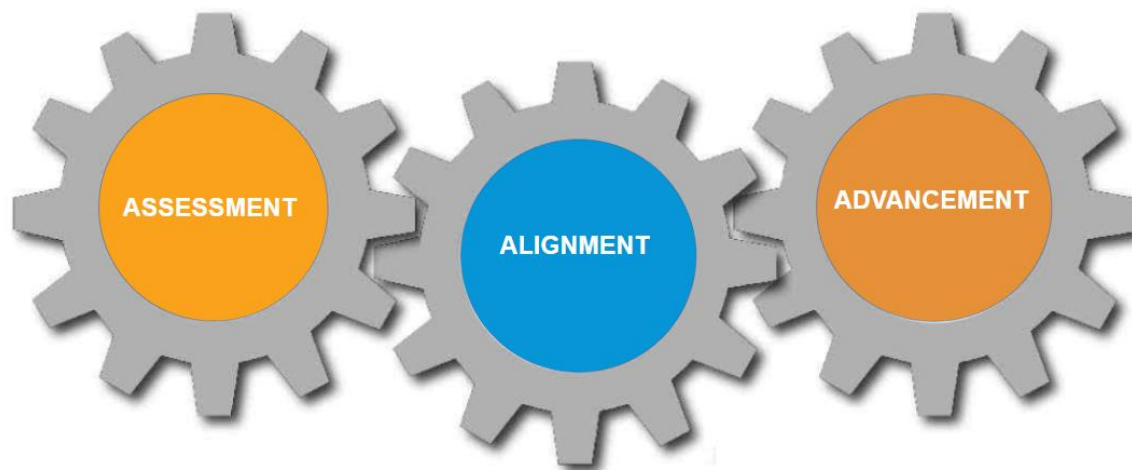
The ability to communicate the vision and mission and charter the course of a steady **“Purpose”** are the key features of Design Technology Leadership. In the heart of hearts, we need to believe in the preamble that we in AEC Industry build the future and “Make a Better World”.

Objective 2: Process

Process: Implement and Manage Design Technology Leadership in your organization.

Digital Process Management refers to aligning processes with an organization's strategic goals, designing and implementing process architectures, establishing process measurement systems that align with organizational goals, and educating and organizing managers so that they will manage processes effectively.

Assess, Align then Advance



BIM ORGANIZATION PLANNING PROCEDURE

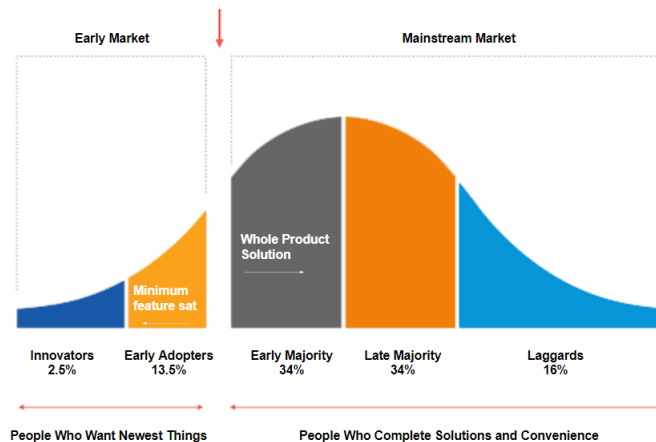
Technology Adoption

Don't just train, create opportunities to learn. Become a culture of learning. It's one of the earliest steps in your process you can take if you want to become a culture of innovation. Skipping this step cuts short the knowledge sharing people in your organization or "thought leaders". An organizational growth mindset also suggests that organizations should move beyond training to thrive in the future. Research shows that intrinsic motivators are quite powerful, and people require autonomy, growth, and meaning in their work. Digitally maturing companies address this need by providing resource opportunities to help their professionals develop skills to thrive.

Culture of learning

- Research-oriented (not opinion-oriented) mindset.
- Knowledge harvest and leveraging that labor to pass on to others
- Participate in online forums outside of the organization

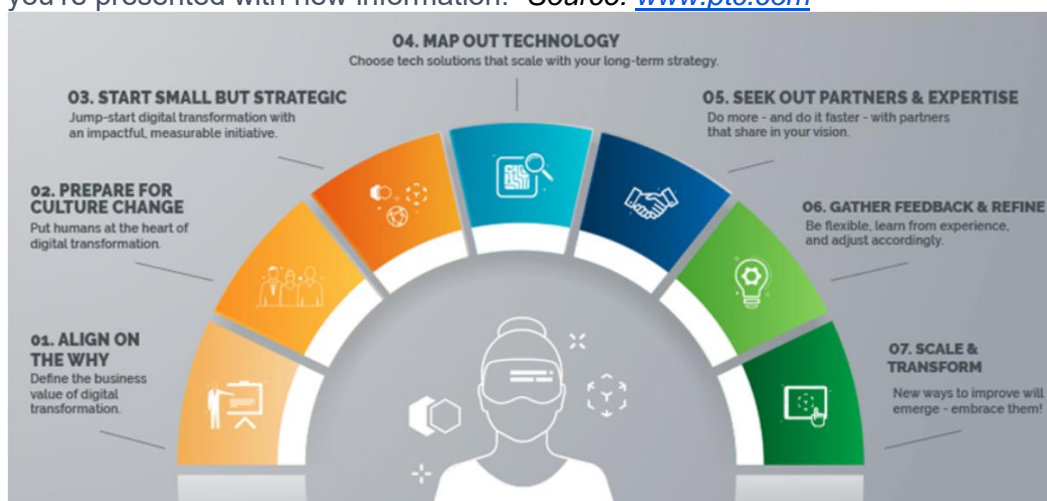
Finding the Sweet Spot of Adoption



The early adopters tend to spend more effort on fewer results and late joiners lack innovation value. The ability to peak at the right time stems from the judgment call to adopt technology at the right onset. This helps leverage the best of results for the minimal effort driving efficiency and profitability for the firm.

Mapping the Technology Roadmap

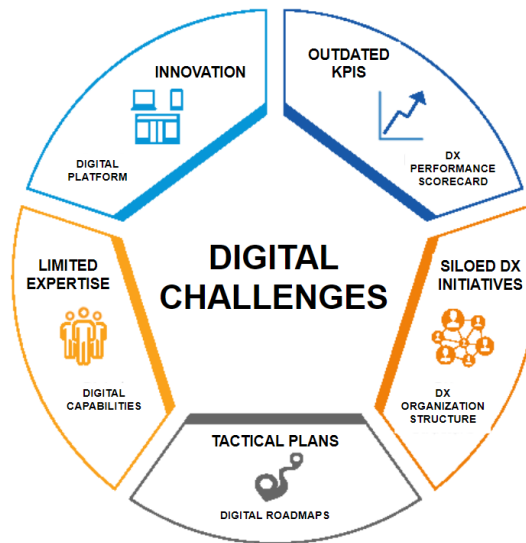
Company leaders or stakeholders often wonder how short and long-term business goals can be matched to a specific technology— all while keeping costs and risks low. One answer is the technology roadmap and road-mapping process. Technology roadmaps are complex and have many nuances. A critical element of a technology roadmap is identifying the strategic goals the organization wishes to achieve. By communicating through your roadmap that you know why, what, how, and that you have an action plan, you stay connected to your business strategy and maintain a sense of key priorities, even when you're presented with new information. *Source: www.ptc.com*



Digital Technology Roadmap for a Firm

Digital Challenges

Any new system or technology that is adopted by your company will require some form of training for your employees and staff to use it. To reach its full potential, new technology must successfully be integrated into an organization's current business processes and systems. In other words, simply buying the new technology is not enough.



Digital Challenges

KPI Dashboard Samples

Stop spending money and start investing. What's the difference? Earlier this year I was asked to be a panelist at Timon Hazell's Your Desk University, and I made a statement about stopping just randomly spending money. Start acting like an investor. The best way you can build an ROI dashboard is to control all the factors that go into it, track them, and then provide an action plan. Not just KPI's (key performance indicators) but OKRs. Objectives and Key Results. I'll give an example: We want to decrease the time it takes to deliver a project by A) running a design sprint in the SD phase. B) Provide at least 10 design details that can be CD LOD 300 ready in the DD phase. C) Automate at least 3 tasks during the CD phase. If your team can do those things and compare it to how you "used to" do it, you'll see that you automatically shaved X number of wasteful hours out of a process resulting in Z savings. This is an ROI that you are responsible for. Go read Measure What Matters by John Doerr. Now, hit pause, search then come back and finish the session out with us. We still have more wisdom nuggets as we begin to wrap up.

SUCCESS METRICS	INNOVATION RATE	CUSTOMER ADVOCACY	DATA CAPITALISATION	DIGITAL OPERATIONS	WORK AND LABOUR SUPPLY
FINANCIAL KPI	28% of company capital budget allocation of Technology initiatives by 2020	20% more profitable customers each year for 3 years	Platform strategies drive data-related IT investments to exceed 25% of total IT by 2019	Achieve 50% market share for target DX product or service by 2020	50% of executive compensation tied to digital MBOs
BUSINESS KPI	40% of DX innovation initiatives approved for implementation by 2020	Improve customer NPS score to positive 50/100 by 2019	Platform-related revenue accounts for 10% increase in total revenue each year over 5 years	Introduce 1 new DX product or service each year for the next 3 years	Percentage of on-demand, knowledge worker labor hour increase by 10%/year over 3 years
Operational KPI	companies spend 10% less per year on DX failure over 3 years	Increased customer interactions for 50% of non-profitable products within 1 year	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	10% of repetitive enterprise interactions are augmented by AI each year for 3 years

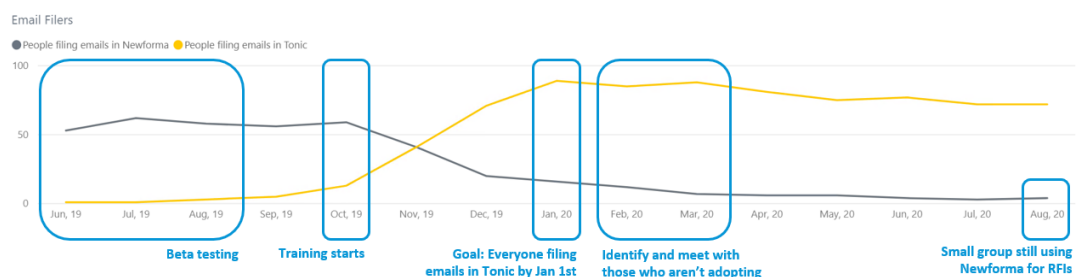
SAMPLE DASHBOARD

Sample OKR Dashboard (Objectives and Key Results)

Tracking Adoption

When implementing any new technology or process it is very hard to measure success or value without tracking any kind of metrics. At Shepley Bulfinch, we rely heavily on software usage data to understand what is happening in the business.

The next two charts outline the process of moving from one software to another. The first shows the number of emails being filed in Newforma vs TonicDM during the rollout and training process. Being able to track who is using each product not only enables us to see that we did successfully migrate, but also identify those who have not adopted the new platform and follow up with them.

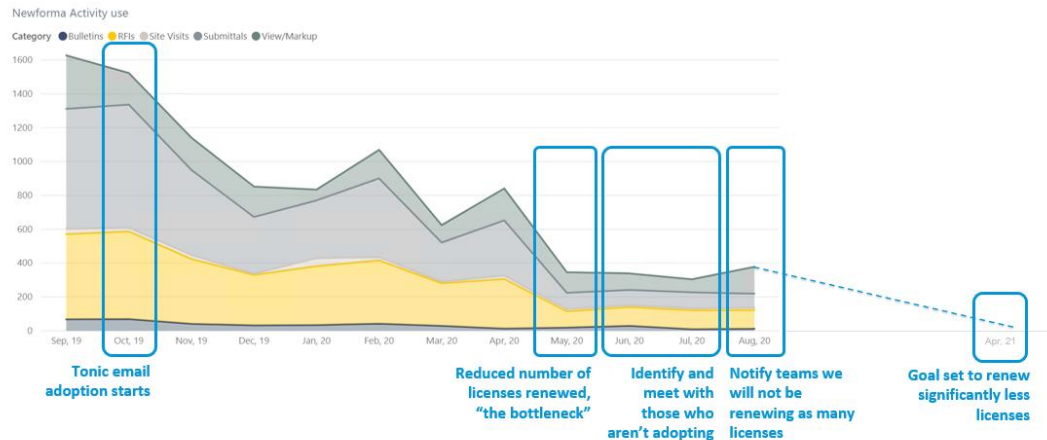


Tracking Adoption of Technology

This second chart shows the usage of other Newforma activities after we finished the migration of folks using TonicDM for email filing. There's a significant dip where our users decided to move over all their processes, these are positive deviants that we may want to reach out to share experiences and convince others.

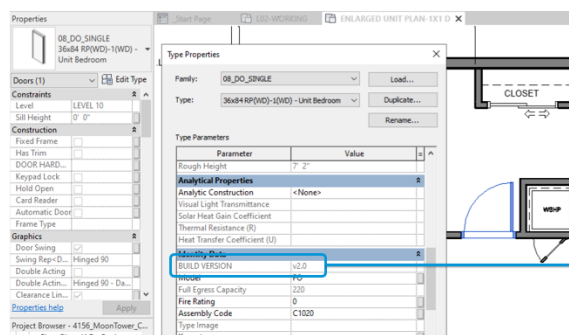
The second significant dip is where we create an artificial bottleneck: reducing license count below how many are using the product, down to how many we believe still need it based on their usage history. This allows me to meet with

everyone who is currently using the product, and have a conversation about what they are doing, how often they might need it, and what alternatives there might be that solve the same problems for them.



Technology Monitoring Usage

We use the same strategies to track all kinds of process rollouts, not just for new software. Lately, all our Revit templates and family content include a shared parameter named “Build Version.” I can use Clarity to pull project model data weekly and identify who is using the latest families, who have older versions of families, and are there commonly used families out there that we don’t have in our standard library. By building data into the process, I can verify that the time spent building new content was helpful to teams, as well as identify new opportunities before they become a problem.



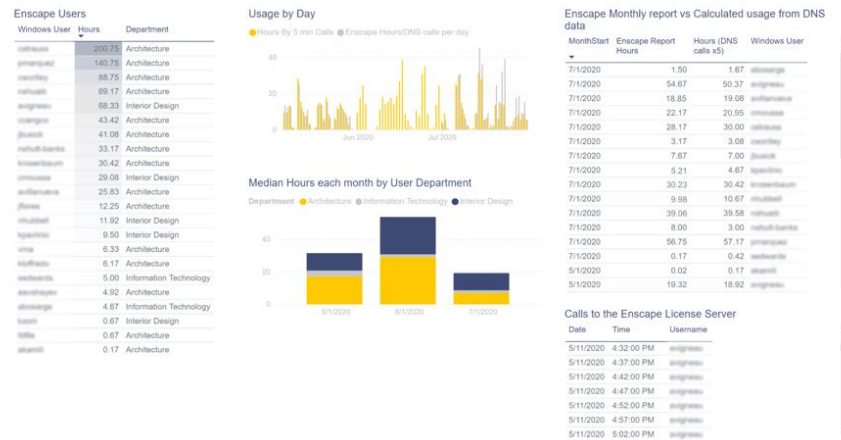
Projects using Newest Door Families		Projects using old versions of the door families	
FamilyName	Projects	Build Number	
DO_SINGLE	51	2.2	
DO_DOUBLE	46	2.2	
08_DO_SINGLE	34	1.4	
DO_SINGLE W SIDEITE	33	2.2	
08_DO_DOUBLE	31	1.4	
DO_DOUBLE EGRESS	25	2.2	
08_DO_CASSED OPENING	24	1.4	
DO_CASSED OPENING	24	2.2	
OP_DO_SINGLE	21	1.4	
DO_ELEVATOR	21	2.2	
OP_DO_DOUBLE	20	1.4	
DO_SINGLE DR ACT	18	2.2	
DO_DOUBLE UNEVEN	16	2.2	
08_DO_DOUBLE UNEVEN	14	1.4	
DO_SLIDING BREAKAWAY	13	2.2	
08_DO_ELEVATOR	12	1.4	
08_DO_SINGLE W SIDEITE	12	1.4	
08_DO_SLIDING	12	1.4	
OP_DO_SINGLE GLASS	11	1.4	
DO_OVERHEAD-ROLLING	11	2.2	
DO_SLIDING	11	2.2	

Monitoring Usage

Not every process will have an easy method for tracking the data, much like needed to embed a tracking parameter in the Revit example above, you may need to get creative in finding ways to see the usage of the software. For the example below I was able to have our IT manager run a report of every time a machine connected to the Enscape license server. Upon further analysis we found that the license server gets called every five minutes while the addin is running. So, from there I can get an accurate representation of

who is using the program and when, compared to the just monthly totals I get from the Enscape website.

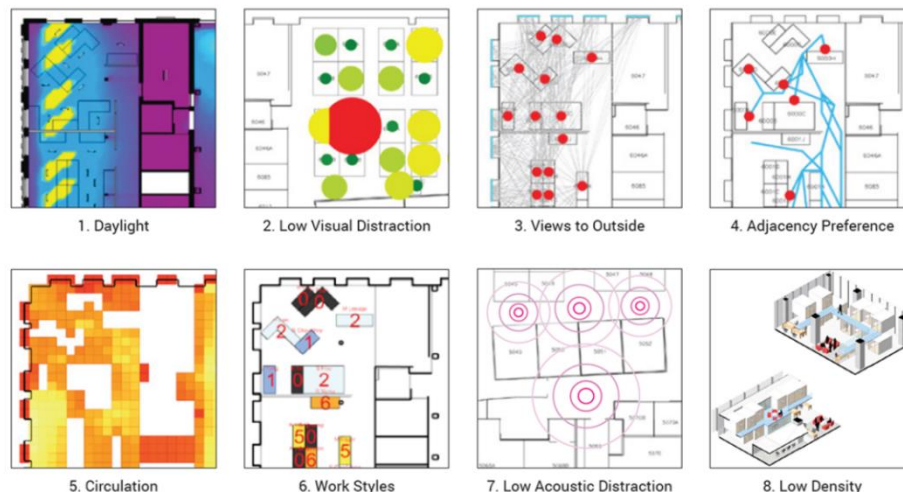
Enscape Usage



Enscape Usage

Generative Design

Generative design is a design exploration process. Designers or engineers input design goals into the generative design software, along with parameters such as performance or spatial requirements, materials, manufacturing methods, and cost constraints. The software explores all the possible permutations of a solution, quickly generating design alternatives. It tests and learns from each iteration what sees the program and can be a great resource to tap in better designs for the future. The ability to iterate and commensurate the best design option is a great leap of progress in the Architectural design process.



Source: Autodesk
<https://www.autodesk.com/solutions/generative-design/architecture-engineering-construction>

GENERATIVE DESIGN

Generative Design (Source Autodesk)

Autodesk Revit 2021 has integrated Generative design, and this opens a plethora of avenues for designers to build or Make anything. This cool feature can be used for daylight studies or even proximity studies to align the workforce seating in the age of pandemic.

Objective 3: Profits

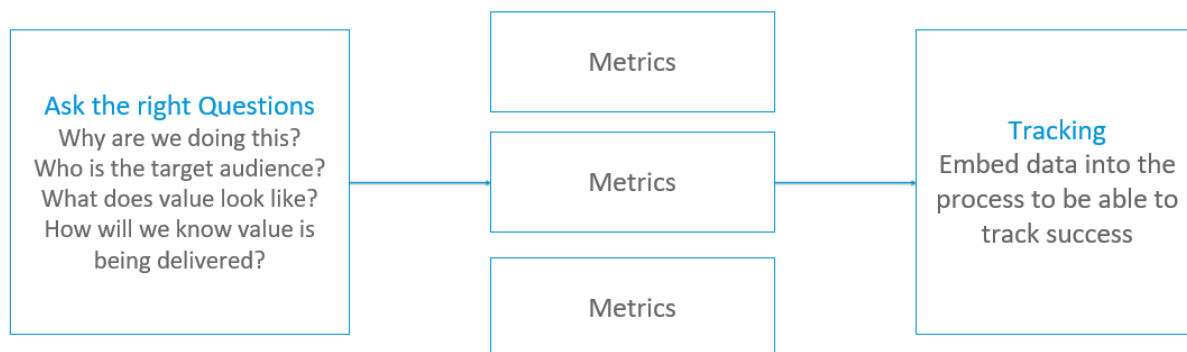
Profits: Enhanced Profitability and Efficiency using Automation and Generative Design

Increasing your firm's technology adoption could help you become more competitive and profitable. Survey results showed that Technology Leading firms had significant 'early-adopter' advantages over their peers, including higher reported profits and the ability to take on change. These differences are likely to increase in the near-term as COVID-19 accelerates technology trends for law firms.

Tracking Metrics of Success

When we're talking about the metrics of a successful rollout (like the examples in the previous section) it's important to think about your audience, and why you are doing something in the first place. If you are trying to convince accounting or finance, does it save x amount of money every year? For PMs maybe it will save you 10% of change orders on a project or save your team time in production. Once you understand who needs to be convinced of success you can set the right metrics for what that success looks like.

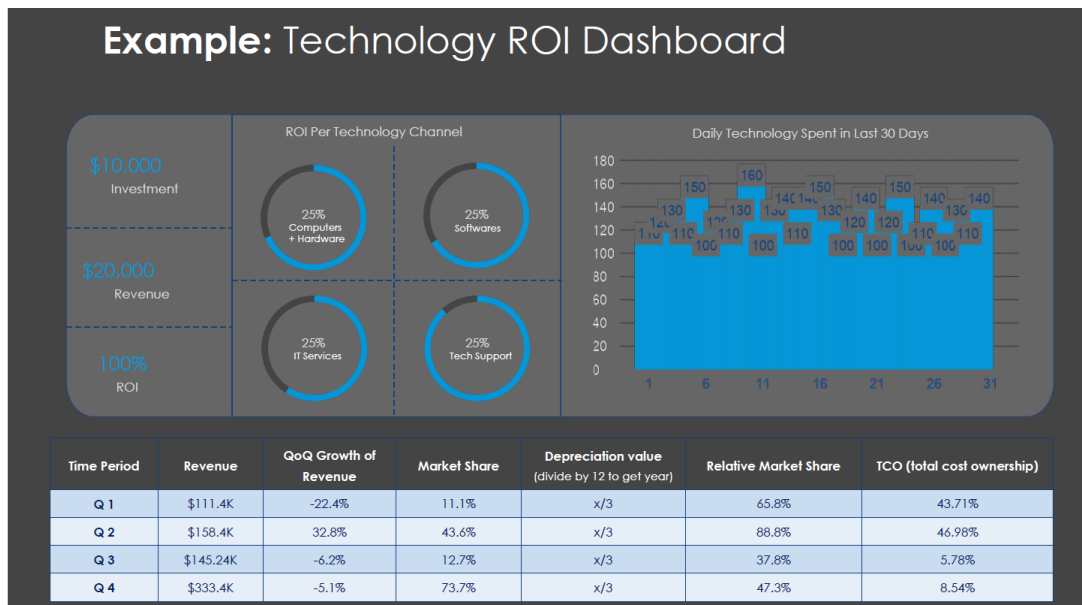
Just as important as setting metrics and hitting them, is making sure you can track those early in the process. Like the Revit families example earlier, without embedding a way to track usage, you would have to interview every project team to see if they are using the families you built. The benefit of proving success is not just buying in for future projects, but also knowing when you are done with something and can move on to the next thing.



Tracking metrics of Success

ROI Technology Dashboard

Example: Technology ROI Dashboard



ROI Technology Dashboard

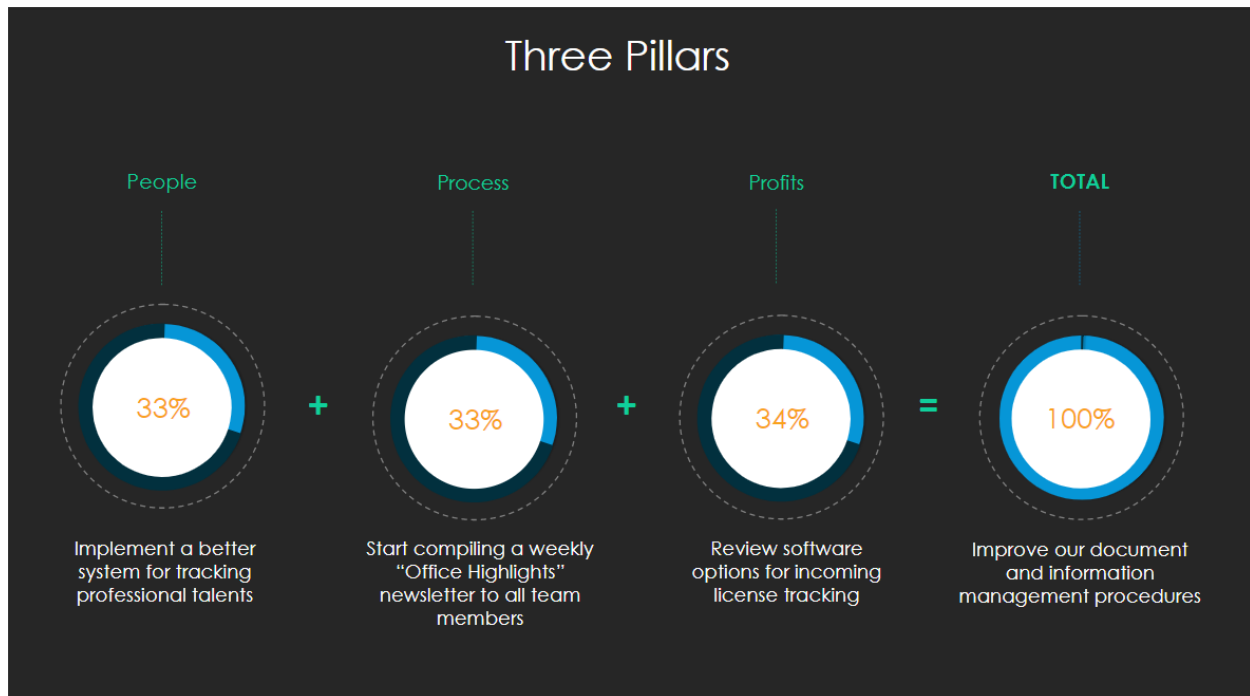
SWOT Analysis

A SWOT analysis is a compilation of your company's strengths, weaknesses, opportunities, and threats. The primary objective of a SWOT analysis is to help organizations develop a full awareness of all the factors involved in making a business decision.

SWOT Analysis



S.W.O.T Analysis



The 3 Pillars: People, Process, and Profit.



What do we see coming down the pipeline?

Active vs. Passive recruiting. This is recruiting people that are attracted to digital leaders who run podcasts, speak at conferences, or operate a digital platform just as a few examples. Recruiting is typically only the 4th highest ranked requirement. You can save a lot of time and money if the talent chases you, rather than the other way around. Finding talent with cutting edge skills that require less upfront learning can be a catalyst for your organization. Anchor hires are leaders who tend to possess business and technical skills, have a following, and just by being at your organization, it says to the world, “This is the place you want to be.” Understanding the influencer dynamic is going to be critical moving forward in any industry. It is your HR Leader’s responsibility to provide this ROI for you.

Take-Home Message

When we got together to present his class, we had a lot of diverging viewpoints. We heard each other and respected each other's ideas. The ability to converge at a common purpose and staying constant in the preamble is the key takeaway of the class. We wish everyone attending the very best and hope you can continue to **“Make a Better World”**.

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