Workflow evolution in a maturing BIM environment

Paul Cheevers

Practice Applications Manager

PERKINS EASTMAN

AUTODESK. UNIVERSITY

Paul Cheevers

Associate, Practice Applications Manager

With over 20 years of CAD and Application management experience, Paul Cheevers has worked at Perkins Eastman since 2008. As part of the firm’s Design Technology group, he provides strategy and planning; working closely with the firm’s leadership in Design, Project Management and Technical Resources. Since joining Perkins Eastman, Paul has been instrumental in the creation of the firm’s Visualization & Digital Practice groups and has led or contributed to firmwide initiatives focusing on 3D Printing, VR/AR, Knowledge Resource systems, and Project Information Management workflows. Paul brings passion and energy to his work and cares deeply about sharing knowledge and motivating teams.

Class Description

Workflow evolution in a maturing BIM environment

A generation of AEC professionals remember the tumult that accompanied the rise of desktop CAD at the end of the 80’s and early 90’s: massive costs, glacial speed and a lot of beige plastic. Fast forward to the current era, with the internet, fast computers and a variety of powerful applications at our fingertips, it is tempting to say we never had it so good. However, as we reach a period of BIM maturity there are lessons to be learned, and new answers to be sought about how we work and communicate from the internal team level all the way up to the inter-company level. Using the history of CAD and BIM adoption over the last 30+ years as a framework, this talk will discuss how the current state of BIM maturity and application variety in the industry allows us, even necessitates us to take a fresh look at how we are working together.

Learning Objectives

LO1

Understand the changes in workflow brought about by the mass adoption of CAD and BIM technology over time.

LO2

Understand the difference between a “BIM adopter” and a “BIM user” when describing a firm.

LO3

Look at their own organization for strengths and weaknesses in their current BIM maturity status.

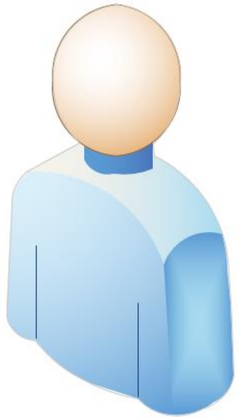
LO4

Start to make decisions about maximizing their BIM and AEC technology investment by embracing new workflows.

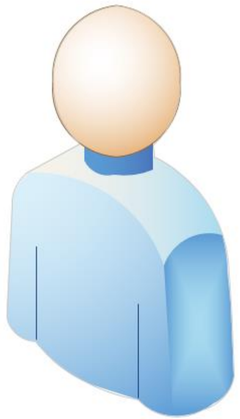
In the beginning…

Introduction

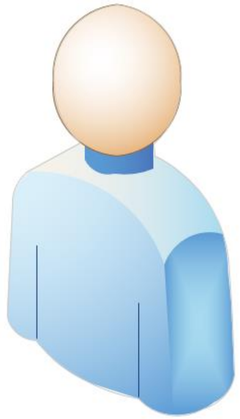
The three most critical communities in a drawing office are the Designers, the Project Managers and the Technical staff. Supported by other groups such as accounting or IT, their practices, how they communicate with each other and how they execute a project have been largely unchanged for a long time.



DESIGNERS



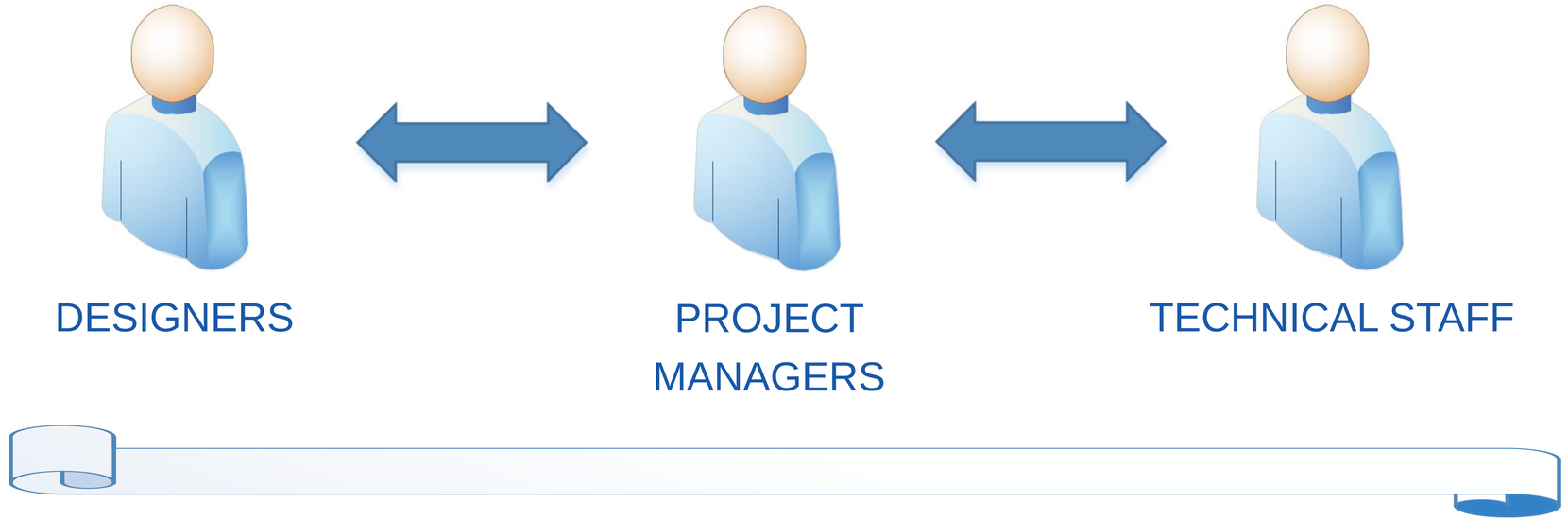
PROJECT MANAGERS



TECHNICAL STAFF

Don’t paper over the facts

The oldest drawing office occupant of all is **paper**. As the universal media for design, documentation and construction, our entire visual language for creating and interpreting AEC drawings is based on using paper (or vellum/papyrus, etc.)

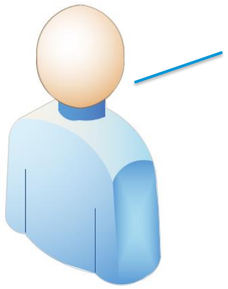


The long term history of the paper-based process has informed the communication patterns between teams and firms since long before computers.

Understand the changes in workflow brought about by the mass adoption of CAD and BIM technology over time

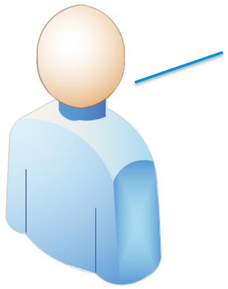
CAD makes it’s debut, computers might catch on…

Whilst construction techniques and materials have radically changed in the last 100 years, the process by which we create and use drawings, the workflow, was not changed all that much by the arrival of desktop CAD. When CAD was new, most of the work was based on getting our heads around the tool, and because of the insane costs, and limited range of software (also expensive) computers as tools were constrained in their use. An early CAD setup cost as much as a car and could only do one thing. A lot was asked of early adopters, even if they were not actually using the new-fangled CAD machines.



“CAD doesn’t work for us, it’s not a design tool”

DESIGNERS



“CAD is too expensive, we’ll lose time and money”

PROJECT MANAGERS

“CAD has a lot of potential but it needs more features to be really useful”

TECHNICAL STAFF

Understand the difference between a “BIM adopter” and a “BIM user” when describing a firm

LO2

Deja-Vu all over again

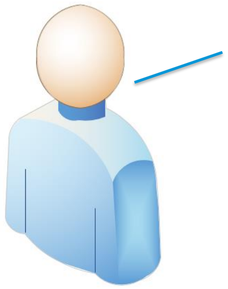
If we understand the core Designer/PM/Technical workflow was not impacted all that much by the arrival of CAD, and if we understand that BIM is a process, as opposed to a tool, how do we know if we are doing BIM the right way?

- Using BIM as a CAD replacement.
- Project start-up process changes.
- Same old pitches.
- Same old deliverables.

Pattern recognition

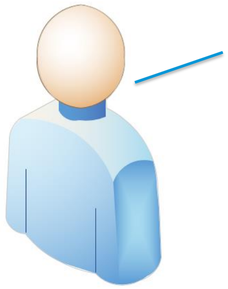
Because BIM is a process, it has the potential to change everything. That said, it’s not mandatory. If you’re profitable now, working the way you’re working, why reinvent the wheel, right?

BIM maturity, more than anything is about attitude. To embrace the benefits, you have to let go of some of the historical processes, not because they are bad, but because they might be holding you back.



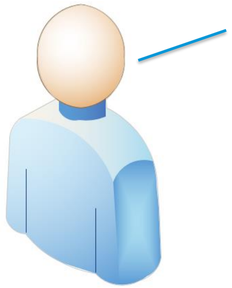
“BIM doesn’t work for us, it’s not a design tool”

DESIGNERS



“BIM is too expensive, we’ll lose time and money”

PROJECT MANAGERS



“BIM has a lot of potential but it needs more features to be really useful”

TECHNICAL STAFF

Look at their own organization for strengths and weaknesses in their current BIM maturity status

Taking the leap

A firm moving towards or operating in a state of BIM maturity is thinking and acting differently from before the contract is signed.

- Coordination between BXP and contract.
- Expectation of evolved communications with consultants and other project stakeholders.
- Design phase no longer vacuum, team should be creating model in BIM application as soon as possible.
- Performance analysis, rich deliverables, and openness to IPD present immediately, do not wait to be asked.
- Proper 2nd generation standards in place.

Start to make decisions about maximizing their BIM and AEC technology investment by embracing new workflows

LO4

Forward with confidence

In a lot of ways, when desktop CAD arrived, we were excited, but we were also frustrated because we had visions of how it could be. The reality at present is that the applications and other tools available to us are incredibly powerful, and can deliver things now that were beyond our imaginations of the time. In some ways the tools capabilities have out paced our vision for how to use them.

Working smarter, not harder is they key.

Questions?

Paul Cheevers

Associate

p.cheevers@perkinseatman.com

PERKINS EASTMAN

AUTODESK®

Make anything™