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## Elevating Skilled Trades to Project Management - The Value of Professional Development

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**Lorian Barlow** - Tradeswoman Advocate and Director/Producer, Hard Hatted Woman

**Lauren Sugerman** - Chicago Women in Trades Director - Center for Women's Equity in Apprenticeship and Employment

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### Learning Objectives

- Realize the value of professional development for your operations and management staff
- Leverage professional development programs to recruit talent

### Description

Skilled trades people are in demand, with many sectors of the construction industry experiencing a shortage of workers. While there are ongoing efforts to work towards solving this challenge, such as workforce diversification and better access to apprenticeship programs, it is important to remember that skilled project management personnel are in short supply as well, and that shortage is continuing to grow. Historically, the industry has tackled this challenge through on-the-job training and elevating tradespeople to management positions, leveraging their firsthand knowledge of the work done at the job site. These mentorships, whether formal or informal, continue to be of great importance, but may fall short in today's rapidly changing construction industry. With the adoption of new technologies such as software based project management tools, digital drawings that include 3D and BIM data, and evolving methods of collaboration such as Lean thinking, it's important to adopt more formalized methods of continued education and to find ways to make this available to our skilled trades people. This panel discussion will explore the importance of access to information and training, the value of self-paced learning, and the benefits professional development can bring to organizations and the industry as a whole.

### Speaker

**Jim Rogers** is an experienced construction industry trainer and educator that stresses the importance of integrating safety, quality, and productivity into all operations. Jim is currently an Instructor for LinkedIn Learning where he creates on-line courses in construction management topics including planning, risk, safety, lean, digital workflows, and productivity. These courses have been viewed on-line by tens of thousands of users worldwide. Jim's industry experience includes many years in various roles within the construction industry as well as extensive work with trade associations creating training and certification programs. Jim was a faculty member at

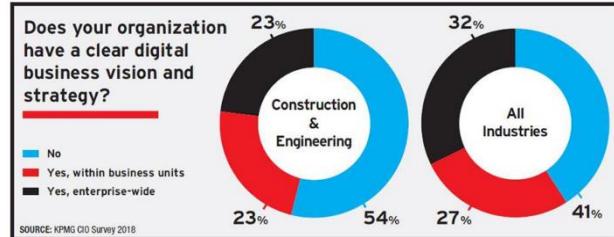
Arizona State University (ASU) where he taught undergraduate and graduate courses in construction management and created the University's OSHA Training Institute Education Center. Jim continues to work with industry in consulting roles and focuses on the transformation of traditional paper-based process to digital workflows.

**Lorien Barlow** began developing Hard Hatted Woman in 2013 and has since then interviewed dozens of tradeswomen from all over the country and ventured onto construction sites from coast to coast to film them working. Production has brought her to tradeswomen communities in Chicago, Sacramento, Saint Louis, San Francisco, Boston, Portland, Pittsburgh, Beaumont, and New York City. She has traveled to national conferences to meet industry leaders, labor activists, and advocates from tradeswomen organizations, while building strategic impact partnerships for Hard Hatted Woman. She is a regularly sought-out speaker on tradeswomen's issues before industry audiences. She is a regular guest at the Women Build Nations conference and has delivered keynotes at ENR's 2016 Groundbreaking Women in Construction conference and the Autodesk University Summit in 2018, in addition to numerous other panels and presentations. She has also appeared on HuffPost Live and ConTechCrew podcast, and been interviewed in the Huffington Post, Ms. Magazine, and various trade journals. Hard Hatted Woman is her first feature film.

**Lauren Sugerman** is the Director of Chicago Women in Trades' National Center for Women's Employment Equity. A former elevator constructor, Lauren co-founded Chicago Women in Trades (CWIT) and served as its first executive director for more than twenty years. She is a nationally recognized leader in research, policy and programs to open doors for women into traditionally male-dominated blue-collar occupations. She provides technical assistance and guidance to employers, unions, apprenticeship programs, and public agencies on how to increase women's equal employment opportunity in construction, manufacturing, and transportation. She is the co-author of several research reports, policy recommendations, toolkits, curriculum, and successful legislative proposals. She served as an appointee of the U.S. Secretary of Labor to the Federal Committee on Apprenticeship and OSHA's Advisory Committee on Health and Safety in Construction and in the state of Illinois, she served on the Workforce Investment Board, the Governor's Commission on the Status of Women and the Gender Equity Advisory Committee of the Board of Education. She is a founding member of the Committee of Women in the Trades for North America's Building Trades Unions of AFL-CIO.

## Continued Education and Professional Development in the Construction Industry

We are entering a new era in the construction industry. A digital era. Technology is poised to be a major disrupter in the industry, with the potential impacts including significant enhancements in productivity, safety, and quality; yet the construction industry lags almost all other industries in the adoption of technology. A 2018 KPMG survey of construction/engineering industry chief information officers showed that just 23% had a "clear digital business vision and strategy" across their enterprise, compared with 32% of all industries. Another 23% reported having a digital business strategy for certain business units, leaving 54% of construction/engineering firms entirely lacking a clear digital business strategy.



*Figure 1 - KPMG Survey on Digital Business Strategies*

At the same time, the industry is attempting to change many of its old ways, with a renewed focus on things like keeping workers safe, rethinking productivity strategies, and embracing alternative project delivery methods. Methodologies such as a Lean Production have had a proven positive impact on other industries such as manufacturing. Workforce diversification has opened doors in other industries, providing for a larger labor pool from which to recruit people. But, again, the construction industry lags behind in adoption.

### *Why is this?*

We often hear people state that it's because change is difficult, and that's a valid point, particularly in an industry that tends to be fragmented and set in its ways. The real question though, is *why is it difficult?* One answer to that question is *knowledge*, or lack thereof.

The construction industry is already facing a shortage of skilled workers, workers that are desperately needed to perform trades out in the field. The industry needs people to fill these positions, but this takes training, much of which is hands-on. As the industry scrambles to fill this need through formal training and apprenticeship programs and workforce diversification efforts, it's important to consider that these training and education efforts will need to be ongoing. While hands-on training for our skilled trades people is certainly critical to fill the immediate need, it's equally critical to consider continued education opportunities to fill the longer (but still near) term need to adopt technologies and methodologies that can have a significant positive long term impact on the industry.

Skills like plan reading, using digital drawings and information platforms in the field, and utilizing new tools like laser scanners and robotic total stations are vital to improving the construction industry, as is knowledge of methodologies including digital workflows and Lean productivity. Without the ability to transfer this knowledge to the field workers, change and rapid adoption of things that can usher in great improvements will continue to elude the industry.

One solution to these challenges lies in continued education. While professional development programs are common in the AEC (Architecture, Engineering, Construction) industry, they rarely extend to the skilled trades.

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*How often do you train your trades people once they are put out in the field?*

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In the past, the industry has really not focused on continued education or professional development for skilled trades people. At best, companies bring crews into the office for “mandatory” training to fill immediate needs. Individuals in the field are often left to improve on their own, or not. This is one reason that change is so difficult. People in the construction industry, particularly in the field, are going to resist change because they lack the knowledge, or even the ability to acquire the knowledge, related to whatever new technology or concept is being introduced.

To improve, the industry needs to start embracing concepts and programs that provide continued education to everyone, including the skilled trades workers. Professional development itself can serve to improve the industry by allowing people to acquire the knowledge and soft skills they need to advance to leadership and management roles. This can make the industry more attractive to the potential labor pool and helps further the image of construction as a career, not just a job. Combined with the adoption of new technology and methodologies, continued education is critical to the future success of the industry.

## On-line Training and Education as a Solution

On-line training and education is certainly not “new”, but it is improving to the point of being both accessible and effective at teaching more concepts and subjects. Training that is on-demand and on-line can improve access, particularly when it can be difficult to gather larger numbers of people together for in-person training. Like all methods of training and education, it’s a style that will fit some, and may not work for others.

[LinkedIn Learning](#) is one available platform that is subscription based and includes access to thousands of high-quality courses. By following a subscription-based model, the platform enables affordable access to anyone with a computer and Internet access. It also includes access through smart phones, further opening the platform to field employees.

Advantages of on-line training and education include:

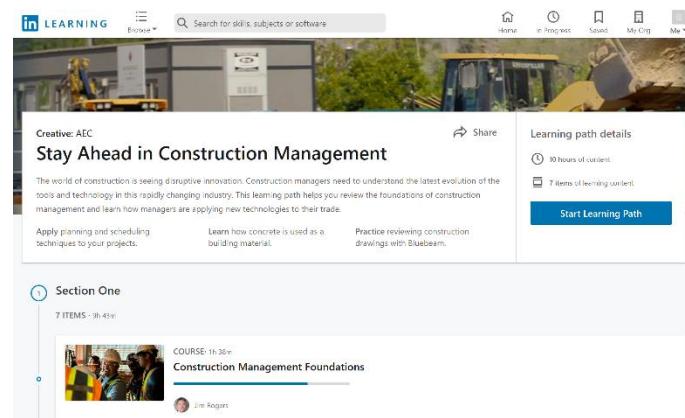


Figure 2 - Construction Management Learning Path on LinkedIn Learning

- The platform is highly accessible. It is available 24/7, anywhere with an Internet connection. Even in a remote location, you can download a course and take it offline. Courses can be formatted for computers, tablets and even phones.
- Utilization by learners can be tracked
- People can learn at their own pace
- The material can be made available for the learner to go back and review at any time in the future
- Updates can be pushed to users when information changes
- The content can be thoroughly reviewed prior to publication resulting in accuracy and uniformity

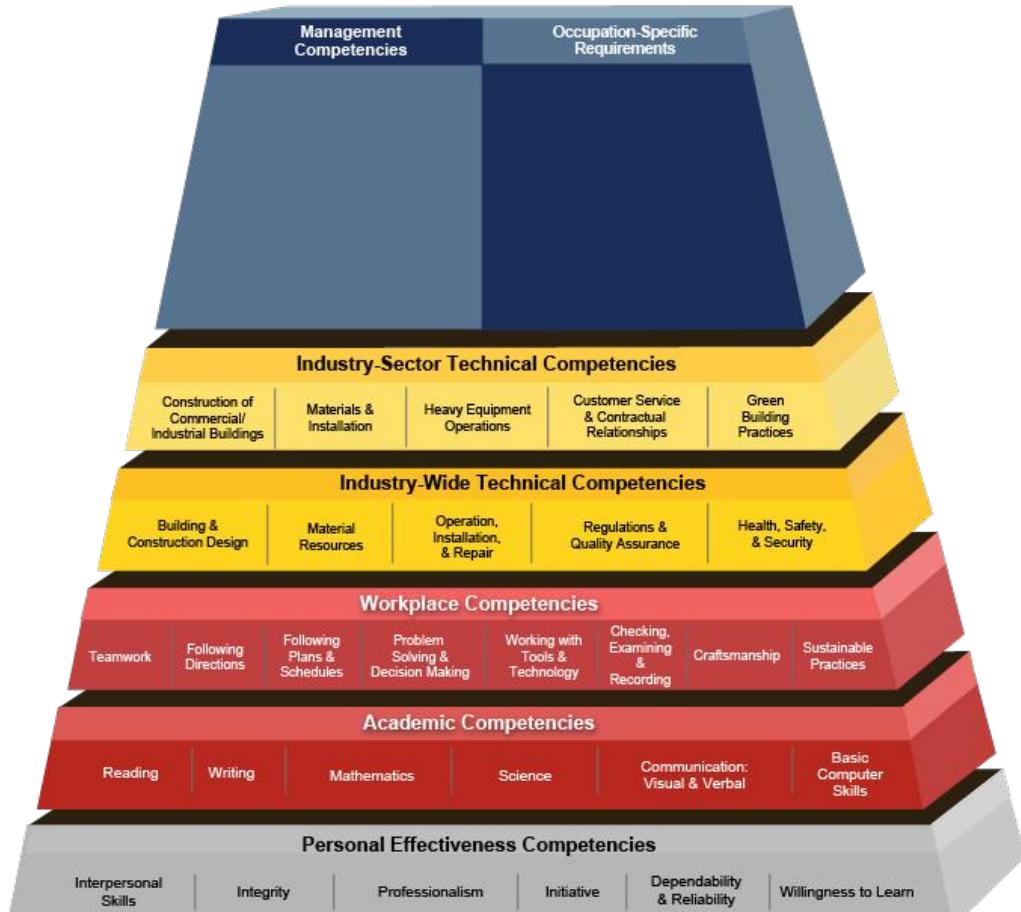
These are certainly advantages that shouldn't be dismissed. However, there are some mistakes being made as people rush to capitalize on the increased market that becomes available with these courses.

1. A bad class is a bad class. It doesn't matter if it is delivered on-line or in person. You can't just record an average presentation and put it on-line and expect it to excel. Its actually quite the contrary. You must start with an excellent class that is concise and accurate. Then you must take extra steps when it is converted to an on-line format to make sure it has elements that engage the learner.
2. An on-line class that is all text and picture based is really just an e-book. There is nothing wrong with publishing learning material as an e-book, some people learn better by reading on their own, but it's not the same as taking a class.
3. Some things cannot be done on-line. Take Haz Whopper training for example. It is not appropriate to teach this subject entirely on-line because some things need to be done hands-on, such as donning and doffing Personal Protective Equipment, with an instructor present to assist and teach. But that doesn't mean that a hybrid approach can't be utilized whereby the technical and knowledge-based content is delivered on-line, taking advantage of all that platform has to offer, while the skills based content is delivered in a classroom environment. This would take advantage of both delivery methods and allow for self-paced learning of the technical content on-line, and shorter times spent away in the classroom.

## Internship and Mentorship

As companies work to build training and education programs, they shouldn't overlook the value of internship and mentorship programs. Internship programs can give students and other individuals that are considering a career in the construction industry the opportunity to shadow seasoned construction personnel (both trades people and management) to learn more about the industry.

Formalizing a mentorship program within your company can be a great way to foster learning and ensure that those that are eager to learn and advance have the opportunity to learn from experienced leaders. These programs also allow many opportunities for asking questions and getting hands-on experience that cannot be achieved on-line or in the classroom.



*Figure 3 - Commercial and Industrial Construction Competency Model from US Dept. of Labor*

## Conclusions

On-line training and education is one solution. It's not a stand-alone solution, and it's not the only solution. The most important issue for a company is to begin to develop a solution that works for them. Access to professional development and continued education can be seen by employees as an opportunity. It can be viewed as a benefit for remaining with a company, and a reason to continue with a career in the construction industry. As the industry continues to adopt technology, access to information and the transfer of knowledge to the people who will be affected in the field will be critical to success.

The construction industry needs to continue to look for ways to open continuing education and professional development to all participants, including skilled trades people. On-line course delivery, whether it is used for employer based occupational training sessions or on-line academic courses from a university, has the potential to revolutionize access to knowledge. We are in the infancy of this delivery method, and easy access to self-publishing tools and platforms have made it easy to publish anything. The platform needs to continue to mature. Media quality

needs to continue to improve and instructors need to collaborate with programmers to deliver improved assessment vehicles. When this is combined with acknowledgement and facilitation of skills-based content that truly needs a hands-on delivery component, on-line education can be leveraged by both instructors and learners to vastly improve access and knowledge transfer.

## Additional Resources

**NABTU Diversity Toolkit: Your Guide to Best Practices for Recruiting a More Diverse Membership** at <https://nabtu.org/wp-content/uploads/2017/06/Diversity-Toolkit-draft-6-15-17.pdf>

**Five Pillars of Mentoring in Construction** by Penhall Company at <https://www.penhall.com/blog/5-pillars-mentoring-concrete-construction/>

For a unique look at women breaking the mold in the construction trades, visit [www.hardhattedwoman.com](http://www.hardhattedwoman.com)

[\*\*The Next Evolution in Construction Management is Here: Are you Ready?\*\*](#) an article on LinkedIn by Jim Rogers

[\*\*Construction Safety Management in a Digital Age\*\*](#), an article on LinkedIn by Jim Rogers

[\*\*On-line Training and Education\*\*](#), an article on LinkedIn by Jim Rogers

Learn about the skilled trades in ***Construction Apprenticeship Foundations*** by Bridget Quinn on LinkedIn Learning at <https://linkedin-learning.pxf.io/skilledtrades>.

Learn about crafting a resume in ***Skilled Trades: Resumes and Portfolios*** by Bridget Quinn on LinkedIn Learning at <https://linkedin-learning.pxf.io/traderesumes>.

To learn more about digital workflows in the construction industry, visit ***Construction Industry: Techniques and Technology*** at <https://linkedin-learning.pxf.io/contech>, an on-line course from LinkedIn Learning.