



Mike Merrill:

Hello, and welcome to the Mobile Workforce Podcast. I'm your host, Mike Merrill. And today we have our good friend, Dennis Stejskal, back on the show. We spoke with Dennis originally back on episode number three, back at the very beginning. And then we also had a conversation with him last week, that was so much fun, we decided to invite him back for one more discussion.

So lots of great things going on in digital and mobile and cloud-based technology and purpose-based software and things that Dennis can shed more light on for us, so we thought we'd continue that conversation.

So thanks again, Dennis, for joining us, we're excited to have another conversation.

Dennis Stejskal:

Thanks Mike, for having me back. I guess something must've worked if you're inviting me back after a week. And it's funny, since we talked a week ago, I've had relevant conversations in the last couple weeks that really made me think about innovation and this whole, business technology, what's happening in our space. And it continues to flow in a direction, I think, I've personally been seeing over the last, let's say, 24 to 36 months, so it's flowing in a continuing direction, but it's getting very interesting. Very interesting.

Mike Merrill:

Well, that's great. I mean, you mentioned on the last episode and I know this well, I mean, you've been at this for about 40 years, I think. So if anybody knows what's going on and how things have gone over the last several decades, it would definitely be you.

Dennis Stejskal:

Yep. We definitely have seen, cycles. I always looked at it in my career as we had old mini computers, which most of the listeners probably don't even know what those were. Then we moved into our windows area and our windows software and networks and all that kind of stuff of everything they could do, then we got the internet. And the internet really started showing up in operational software.

Well, now we're into this next gen, I think, of this next evolution, and it's about the data. There's so many data points out there these days that it really is a little bit hard to keep track of them all. But it's typically pretty solid data, if we could figure out how to consume it all. And that's a major change we're seeing is, the consumption of the data and how it can be truly consumed to truly influence our businesses in a positive way.

Mike Merrill:

Yeah. Yeah. So what are some of the interesting things, like some samples, of which you're seeing out there that are... This data collection that is new, what are some things you can share with us?

Dennis Stejskal:

I talked about this a couple weeks ago, when we chatted about, purpose based software, that, the software of today, I'm seeing a lot more, is being specialized for both the role, the persona, as well as the industry that it's fit into and the trade that's being used for it. So you think about something as simple as, the tracking of small tools. Small tools and tracking of them has been a need for many, many, many years.

One of our industry leaders there, that we partner with for many years, is a company called Tool Watch. And they've been able to help identify, where is the last time we saw a piece of equipment and get the cost into the job and a variety of things there.

But they weren't the manufacturers of the tools, so they couldn't measure. Who was it I was talking with? Milwaukee Tools and here's an example of technology I just don't totally understand. But there's torque wrenches of some sort. That you need to use the torque wrenches to torque the nut, I guess. And they can measure the torque of the wrench. And as they measure each one, that's a bit of data that is, now they were telling me, ties to safety and a variety of other things about that data.

Well Tool Watch, nothing against Tool Watch couldn't do something like that, because they weren't the manufacturer of it. So this whole internet of "things" that we've heard about for years, it's just getting deeper and deeper into the job site. And I think, Hilti and the Milwaukee Tools of the world, they've got some really neat technology these days that helps you track the tools better, truly knows where the tool is, that we're making the job sites that much smarter to truly know ...

The one I saw just recently, and I can't remember the name of the technology. But I remember talking to a colleague some time ago and he talked about, walking by a toolbox on a job site and magically waving a scanner over it or something like that. And that was probably, I think, the conversation. This was some technology where a really, really good size general contractor out of the Seattle area was looking for this type of thing, he thought it'd really cool to just scan the toolbox, to know what tools in there. That sounds kind of cool.

We're having a discussion with one of these partners or one of these companies, tool companies, and I'm seeing a little visual where they showed the truck driving out of the warehouse and they had this little device with two antennas spitting up out of the top, and I forget what it was called. And I said, "What is that?" He says, "Well, we can scan the equipment as it leaves the shop, anywhere up to a hundred feet." And a hundred feet, that's 33 and a third yard. I played football, so I know how long a hundred feet is. And that's pretty incredible. And he says, "The accuracy is unbelievable." And so I think it's that type of technology is just an example of more data points.

Now what's the value of that data? Well, we know when the tool left the warehouse. Guess what? At the gate

of the project, they had the same device. So what's it measuring? Of course, the location of the tool. Now with job site, wire meshing or network meshing going on, they can now extend that through all the floors of the building, so we know exactly where that too is. So, that's an example of, technology.

Maybe what they've built so far that is a little bit overkill where we look at that and say, "Will I really be able to use that?" But we've been asking for years, where is that piece of equipment? Did that piece of equipment get left at a job site? Yeah, sure enough, it's back to that old job site, so that's kind of a neat one.

Another one that I ran into is, things that you really just didn't really realize you needed automation for, and this particular company that tracks rebates from suppliers. Because a supplier, many times in the electrical market, they will... Of course, electrical contracts buy a lot of stuff and there's rebate programs on a lot of things. But when you're buying, the amount of material that some of these electrical guys are buying, you lose track of it. And so there're just dollars being flushed down the drain.

Kind of the same thing, if you think about productivity and you think about efficiency, if a superintendent has the authority and can quickly let a supplier know, "Hey, I'm sending someone over to pick something up because I need it." Number one, you can get feedback that the supplier has it or doesn't have it, before you even send someone over to the supply house. So this whole area of field procurement is again, an example of purpose based software. Very specific role, the superintendent, very specific market, in this particular case, it was electrical again, the electric contractor. And that same concept though if you think about it, it could expand to any trade contractor.

And there're just more and more examples of this purpose based software around... And a lot of it is around operations, but a lot of it is, consuming the data as a result of the operations' activity. The rebate, "Well, the reason we bought this stuff is because we needed for operations to put it in the building," well, there's a financial impact of that.

Field procurement software, the ability to get the materials on the job site when we need them is a critical step, but just as important, making sure that

I don't have to reenter the PO when it comes back into the office is another huge one. And we're seeing, and again, in these really purpose based software, companies start out as small little components, and then all of a sudden they got two very similar needs and they got three similar needs. I think an area we might have seen over the years, software like HCSS or Bid 2 Win or InEight, where it's really a whole suite of software targeted at those civil contractors with equipment.

There're new companies coming out to offer all that. Really maybe doesn't cover quite the breadth, but the depth on any given thing, is there. Assign or Antenna are two new ones in the industry that really new architecture, new truly relevant technology, new technology, they just got to take a little bit of time to build all the functionality out. So lots of things happening that I think is driving the demand for innovation.

Mike Merrill:

Yeah. That's a great overview and some great examples. If you and I were to try and tap into our internal Clint Eastwood for just a minute. And you know where this is going when I bring up Clint Eastwood.

Dennis Stejskal:

Sure. Sure.

Mike Merrill:

Let's discuss the good and the bad, as well as the ugly in construction technology. What are your thoughts on, what you're seeing that's good and new.

Dennis Stejskal:

Yeah. The good, this good is I guess also a bad to a certain degree, is there's a lot of it. There's a lot of new technology coming in the market. So sorting through what technology is the best software for me, can be part of that ugly. It can be hard. It's not as easy as it used to be. Now, of course, the internet makes it a lot easier to go find it, get reviews on it, go to different boards and get feedback on it, et cetera. But there's a lot more of it and that's the good thing. The bad thing is, it's a little bit harder to figure it all out.

The good thing is, it's innovative, very innovative. A lot of the new software is these point systems that are written for a very, very specific purpose, things that 10 years we wouldn't even thought we could do software for. And so they're very, very innovative in that way.

And I talked about this last time we talked, is, if the buyer of the contractor is going to adopt a technology, he's got to make sure he is got a plan of what's the best thing. What am I really looking for? Am I committed to it? Am I committed to doing the change to implementing it? Because if you're not, you're wasting money buying it, don't buy it. If you're not truly willing to make the commitment to change then maybe now's not the right time.

I think that if you do adopt with a commitment software, truly can help improve your productivity as well as your accuracy. One of the newer, not brand new technology it's been around for a while, but I think it's been proven over and over again, that it's truly much more accurate is, takeoff software in the estimated world. Now, if I truly do electronic takeoff, it's going to be typically faster and more accurate than if I didn't do it electronically. And there's an example of adoption of technology for the good, faster and more accurate, faster better quality. So, it's hard to disagree with those statements that many times technology can help in those areas.

I think the good, we've got to watch it for a while. There's a lot of good out there. There's a lot of good out there.

Probably the couple bad, I hinted at one of them, there's a lot of it out there, so it's a little bit harder to decide which one to choose. I think you have to work a little bit more diligently on which one and something that's near and dear to your heart is this whole concept of time capture and keeping track of time. And over the last four or five years, I've been building up what I call a requirements list, of all the things that one might look at in a time keeping system. And there's a lot of good ones out there, and there's a lot of good ones that are very focused on niches. We can do crew tracking better than anyone, and we can do certain type of GPS tracking of where the employees are with all sorts of technology.

But you have to truly figure out what do I need and

what best fits me. So having the ability to grab those requirements, I think, and truly sit down and think about them put them together, is a way to handle the bad, meaning there're so many solutions out there, so just go in it methodically.

As we look at them, I think one of the other areas that I'm seeing or we are seeing is, we're in this whole data evolution where there's just more data than we've ever dreamed of can be. And we've been seeing that with the invent of the internet for the last 20 years, especially, out of all the different data points and all the different data points. Well, if I now have many more solutions, that means I've got many, many different sources of data, and some people will call those data silos if these systems are not connected.

And so, I actually believe we're in a little bit of data silo, I'm going to call it, explosion for a little while. And it's not because we don't have the technology to solve it. I think over the last 10, 15 years standards have risen in how you solve it, technology and how to solve it, the type of technology has improved. It's easier to solve today than it's ever been. But one might say, "Well, why does that lead to more data silos?" And it's because of the number of systems and types of systems out there, there's just more types of systems that produce data, and there's more of them.

I'm going to pick again on your time capture one, if we got a bunch of time capture systems and we only got one out there and everyone integrates with it, well, there's probably not a data silo there. But if I got two out there and not everyone integrates with the second one, I've got some data silos starting. Now, I got three out there and it can just multiply. And so, I think that's something that we, as an industry have to watch.

And I think standards will help there. I'm part of a group called the Construction Progress Coalition, and there's a group out there on studying construction financial reporting via XBRL. And XBRL is an international standard for XML. And I think these standard groups are working hard. We're seeing some adoption, but not enough yet. I think we need to see the market drive it a little bit harder. The contractors of the world got to say, "I need to be able to..." What's the word? "I need to be able to supply my surety agent with monthly WIP reports. And the reason I want to do that, because if they have monthly ones their data is

going to be more accurate, and I run a great company, so my WIP report is something going to be looked at." And maybe that will lead eventually into a better relationship with surety. So that's a real simple use case, but I think that standards can help this data silo.

Oops, something's beeping in my office here. Must be those centers and alarms that send data off. I have to watch for that.

Mike Merrill:

That's a data silo.

Dennis Stejskal:

That's a data silo. It must be. The bad there is, I think that data silos are going to potentially increase for a little while. The good part about it though, I think, we've got the technology to solve that. It's just the willingness by the software vendors, in a lot of cases, to step up and solve those silos.

Mike Merrill:

That's great too. So we're kind of joking here, but when you think about the ugly, what's the ugly in construction data? What's something that you're like, "Oh man, are you kidding me?"

Dennis Stejskal:

Well, one of the biggest ones I think truly is the paper companies. The paper companies there's a hell of a lot less software being used by construction companies these days. So my filing cabinets usage goes down, you think about all the drawings that were on paper that are now digital and electronic. So just kid the other side, of course. But there aren't a lot of uglyies, okay. There are uglyies that I think in a lot of cases we can control if we commit to it. Usually the software solutions I'm seeing these days, I think the quality of them is better. There still software that has a bug in it here or there. But the overall purpose of the software, the rationale of the software, the quality of the software I think is better than it's ever been.

And then to go along with it, the ability for a software company to react is even faster, because I could push out a correction to something and in 24 hours,

thousands of companies can have that update running and working. I think the deployment of software these days is definitely a plus, and it also allows us to be little bit more innovative and to take a little bit more risk in getting that product out there. And we're seeing that happen in a lot of different places. A lot of different places.

So no real, real ugly, even though I think the goods definitely outweighs the uglies.

Mike Merrill:

That's awesome. So when you think about companies that either have plenty of tools and maybe haven't necessarily leveraged them properly or appropriately, or maybe they just have gaps that they need to fill a technology, is there some low hanging fruit in your mind where a company could invest a few bucks into something and probably see a pretty quick return?

Dennis Stejskal:

That's a tough one. And again, what's hard there is, there's so much technology out there.

I talked a little bit earlier about takeoff. I think the takeoff technology, especially the 2D technology out there is solid, and I think the biggest thing there is just not enough companies have really bitten the bullet to say, "Go, we're implementing that technology. Let's do it," and get the proper training in place, etcetera. So that's, relatively, one that's been around, but I think that there's a lot of room for adoption.

Another one is, anything to gather data in the field, be it time cards, be it photos. I think the technology around that, there's a lot of it and the integration is pretty good. I think the tool sets as well as the vendors realize that, all we do is capture data and we don't ever provide it to the proper spots for consumption then it's only worth so much. I think the software world realizes the importance and critical nature of integration. But more importantly, I think they realize the market expects it, and so we've got to supply that. So I think field, capture, tools, be it time, be it photos, be it issues, operational type capture tools, I think is a major spot. And there's a lot of software available.

Some specializations, I mentioned, field capture for procurement. I think that's a great one. If you are out in the field and you have to deal with materials, I think there's a lot of tools that are already in place, they're just waiting for companies to truly say, "Okay, let's do it." Some of this technology you can adopt it from a perspective of, "Okay, let's roll down on one job. Let's put it on one job and see how it works," and truly get that ROI.

I was talking to a contractor in Pennsylvania a couple weeks ago, months ago, weeks ago, at a ABC Event. And his title was, chief innovation's officer or something like that. And it was all about small wins, and then he says, "Well, one of the things we do is we try to analyze a job and see how much it will save us on a project." And he says, "A lot of times we will try technology on one project just to see, because it's relatively easy to do these days and I can train a smaller group." I think we're seeing a little bit of that happening rather quickly.

He did make comment he says, "A lot of times once we get it out there and we start working with it, we can see if it's going to work or not for us. And it's not that we didn't miss it, but we missed some requirements and as we dug into it, they weren't there." So field capture I think is a great one. This one is a little bit harder though, because I think it's a bigger investment, there are tools out there to help pull data together. There's more data accumulation tools, data warehousing tools, but it's also an area that I think technology is still changing.

You might have heard a technology called Snowflake. It's a database type technology tool that is being built to real time accumulate data. And it's going to take some time for all the people to push the data in there. But it's a little bit different type of approach on a tool. It's one where I think we all got to keep our eyes on, but maybe not quite ready yet for all the primetime use cases.

Let's see what other low hanging fruits. Another area just as I look at the technology area and you start thinking about it is, "How freaking obvious. Why did it take us 40 years to get there?" I think safety. I think measuring safety, helping on safety. And this is the first time I've ever thought of this. I've done an analogy in the past of a construction financial manager saying,

“Yeah, we are the historians at one time, then they are data analysts, and then finally they’re predictors.” And if you think about safety, I think it’s going through a very similar evolution, for a while, everything that had to do with safety was manual. Everything manual was safety. Your toolbox talks were all manual. Everything was manual. Keeping track of training, everything was manual. And even tracking of incidents was somewhat manual, and I think we’re over that now. So incident tracking and safety, is where, we’re well beyond that.

And there’s a lot of different tools out there to track what has happened from a safety perspective. But I think that is a case of a set of innovation and tools. Moving into the second level is, better analysis of the type of ... Better analysis around safety. What types of events? Do they happen on certain days versus other days? Do they happen with certain crews, have bigger safety incidents? So the analysis of the data, because the data is more data, and I think that the quality is better, is now in a case where it can help a safety conscious company that much more. And then, that is now switching to predictive. What could we do to help prevent the accidents?

And that’s where the safety world I think is now. It’s kind of been through one and it’s been through two, in a rather quick manner, because 10 years ago, you didn’t hear a lot about safety software. Everyone’s touching it now. Everyone’s touching it. And so as a result of that, I think we’ve evolved through that quite quickly, and we’re getting into the analytical. And I throw wearables and some of that type of technology into the safety spot. If you could predict someone’s temperature as their body heat is getting up where it’s, “This guy’s going to pass out,” and you could now truly see that happen in real time and get them into the shade, get them off a job site, that’s one less accident that’s going to occur.

I think safety, if you don’t have a strong safety solution in place, there’s so much you can do with just the novel, simple portions, that it’s a great one to start with learn what you don’t know and master that historian type approach, get you quickly to a little bit more the analytical approach, you could do that today probably pretty easily. There’s a lot of software out there that can help there.

Mike Merrill:

Yeah, that’s a great one. And in fact, I shared this thought recently. We’ve used it for years just in presentations and discussions. And essentially there’s a reason that the rear view mirror is only eight inches by two inches on your vehicle, and the windshield is probably five feet by three feet, so you can see what’s coming as it’s coming. The rear view mirror is just to let you know what you ran over are ways back there.

Dennis Stejskal:

Yeah. See where you’ve been. See where you’ve been.

Mike Merrill:

It’s same concept here, and I love how you analyze that with regards to safety, real time visibility, which leads to production and then managing those issues as they come up or before they come up, opposed to trying to go back and bailing wire and duct tape them.

Dennis Stejskal:

Yep, exactly. Exactly. And again, probably the biggest takeaway for myself, because I haven’t thought about that particular one that much, I haven’t spoken to that. But it’s truly, there’s a lot of companies that are still using paper and pencil there. They’re still in the analog world there. And I think that’s an easy one where you can see pretty quick return pretty quickly, by just doing some very simple things. And the software’s better than it’s ever been in that space. And I think you can definitely get you started down the development of a much stronger, better safety program.

Mike Merrill:

Yeah. The tools to administer that type of a system are now in people’s hands already. They’re already in apps, it’s already in their eyeballs. So yeah, it makes a lot of sense.

That was awesome. Well, another great conversation I’ve really enjoyed that. I thought I just end up with just a couple of last personal questions here.

Dennis, you’ve been at this a long time. What’s something that you’ve really learned to be grateful for in your illustrious 40 year plus career at this point.

Dennis Stejskal:

Yeah. It was interesting. We had a conversation a couple weeks ago at a Sage Construction Group meeting and we talked about the same thing. And what keeps me driving into this space is, driving down the road. And you might say, "Driving down the road, what the hell are you talking about?" And I said that, "I drive down the road and I look at the buildings that have been built and I look at the buildings that are being built. And I think about how, the work that Timberline and Sage in this construction real estate space has contributed to that. I get very excited and driven by it."

I was talking to some people the other day about this whole education market. And we got into a conversation about, tilt-up buildings and what tilt-up buildings are. And it's a thing where, 30 years ago, I wouldn't know what a tilt-up building was. And just the level of knowledge that I've gained, just watching these construction sites and watching them grow and watch the safety components that are now out there and how much safer our world is, because of the construction we're doing. Being a part of that is probably the coolest thing I've had, is just being a part of that.

Mike Merrill:

Yeah. I love that. What a great answer. Well, that's a great way to end and as always, we've really enjoyed having you on again. And just appreciate your wisdom and your willingness to share with our listeners so much that you've gained over the years and hopefully add to their life and improve their situation and what they're managing as well. So thanks.

Dennis Stejskal:

Thank you. Appreciate it. And we got some shows coming up this fall, and some shows coming up in the spring. I know CONEXPO is back. Last time we had CONEXPO, you all might recall, CONEXPO got shut down by COVID in March of, I forget the year, but March three years ago. So we've come full circle on that, that whole thing, and hopefully we'll see some of you at some of these upcoming trade shows.

Mike Merrill:

Yeah. Looking forward to it. Great point. Three years ago now, so that's incredible.

Dennis Stejskal:

Yeah. It is. It is.

Mike Merrill:

Well, thanks again, Dennis.

Dennis Stejskal:

Thank you, Mike.

Mike Merrill:

All right. Be well.