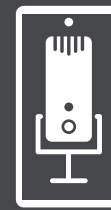


# Christian Burger



**Mike Merrill:**

Hello, and welcome to the Mobile Workforce Podcast. I am sitting down today with Christian Burger, the president and founder of Burger Consulting Group, and far too many other things to list off, but Christian has a lot of experience in the construction industry. We wanted to talk today about your background and the things that you have learned about prefabrication and robotics. So welcome, Christian. We are so happy to have you here with us today.

**Christian Burger:**

Well, thanks, Mike. I'm delighted that you asked and looking forward to the conversation.

**Mike Merrill:**

Awesome. Well, why don't you tell us a little bit about your background and your company and what you do every day and how that relates to the construction industry and technology?

**Christian Burger:**

Will do, will do. It's hard to imagine that I've spent 30 years in the industry but I am getting close to that now. I started my work in the industry at FMI, the management consulting firm, doing systems work then. Spent a year JD Edwards doing some management stuff. And then from that point, I kind of branched off and created Burger Consulting Group. And we've been in business here in the Chicago area for 22 years, helping construction firms with software selection, implementation, process improvement, IT stuff. And then of course, that's how I got to know you and some of our clients have chosen and implemented your software.

It's been interesting to watch our industry move as I'm sure you have noticed it. They didn't embrace technology in the beginning and it was a hard push early on to get contractors to embrace the change in

technology. And it's still, I don't know, it kind of, it's interesting to watch, but you've got some companies that are pretty aggressive in embracing technology and all that it brings, and others are still a little bit reluctant and piecemeal. So I would say that, over time, what's been interesting is to see how the industry as a whole has responded to the availability of technology.

And one of the things everybody talks about is that our industry is under-automated, that we're very low on the digitization curve. And also, the productivity growth for our industry has not grown in 50 years. So the question then becomes are the two correlated? So, that's perhaps the topic for another podcast.

**Mike Merrill:**

Yeah. If we're being honest, when people in the trades hear automation, digitization, robotics, prefab, there could be a fear of, is someone coming from my job, am I going to be replaceable?

**Christian Burger:**

I think when they hear digitization, automation, sometimes they think, oh, the office has given me more work to do in the field. And so, they're making me into a bookkeeper. That's the one thing you hear the most from foreman in the field is, they don't want to be administrators, they don't want to be bookkeepers they want to be foreman, they want to put work in place. And so, that's one of the fears that you have to overcome. But you're absolutely right. I would say that more often than not during demonstrations of accounting software anyway, invariably, somebody in the room when there's a feature that is particularly powerful in the software, it does a lot of work that somebody was currently doing manually. The answer they get is there goes my job. They think that they are being replaced.

And I would say that we are not an industry that's overstaffed by any stretch, where we've got 10

accounts payable clerks and if you automate and streamline, you can get rid of three or four. There's a little bit of that for very large companies, but overall, that's not usually the way it goes. What I do find is that, you have to tell them is, the work that's going away because of the automation is actually low value, and that we have higher value tasks, we need you to do. And we're going to train you for that and show you how to do it. The people that are there tend to be long term employees and capable of much better work. And so, I like to couch the automation as an opportunity to move on to higher value tasks.

**Mike Merrill:**

I love what you're saying there. That has been my experience almost across the board. I never hear people say, oh, yeah, we're totally caught up, yeah, we're trying to find work. I haven't heard that many, many years.

**Christian Burger:**

Yeah. I think to put it in terms, Mike, that your company probably deals with. You're probably too young to remember this, but back in the old days, companies would do manual time sheets. And they would fill out a piece of paper in the field and fax it into the office, or they jam them all in a FedEx envelope and express mail them into the office. And then somebody had to open them up, take them out, and they'd key them in. And they would typically key them into a spreadsheet and then key them into the payroll system. So, if you can automate that process such that the hours that are entered in the field are approved and then flow into the payroll system automatically, you've just eliminated work on both sides, and a whole lot of phone calls to validate and verify.

And I think that is tremendous value, and frees up people in the office to do more important analysis, labor analysis, and are we compliant with overtime rules, are we compliant with wage and hour, and are we compliant with certified and doing the certified payroll reports correctly? I mean, there's so much more work that needs to be done. I think it's a redistribution of work, not an elimination of jobs.

**Mike Merrill:**

Oh, yeah, that's a nice phrase, redistribution of work or labor, not a replacement of jobs. That's great. I'm not too young to remember because that's how my company did it. We were on paper and spreadsheets. That's why we came into the industry to help contractors get off of those things and automate in a digital way.

**Christian Burger:**

So Mike, I don't want to jump ahead of your questions, but I would say that one of the things that I, since we're on the topic of time cards, one of the things that I'm feeling a bit stressed about at the moment is that we're still fighting that battle. Time sheets should have been solved 20 years ago. That's my opinion. And I got to believe you think so too. And the fact that we're talking to companies today about automating time sheets is a bit, just a little disappointing I suppose, because I need people working on IoT, big data, business intelligence, workflow. Pick the topic, there's so many things that are very current, and helping robotics to help position the company to move forward.

And if you're still solving time sheets and invoice routing and approval and project management systems, you're just going to be that much further behind in getting to the things that you need to be addressing.

**Mike Merrill:**

I think, to your point, and we started AboutTime Technologies 17 years ago plus. That was the initial phase was getting people off paper and spreadsheets. So, I would say to your point, it is no longer innovative to get off paper and spreadsheets. That should have been done over a decade ago.

**Christian Burger:**

Yep. Yep. Exactly right.

**Mike Merrill:**

I actually tell companies it's different conversation now. They feel like hey, we're trying to be more innovative, and when I have a frank conversation with them, I

sometimes say, this really isn't that innovative anymore. You're actually behind. Your competitors are already-

### **Christian Burger:**

And what worries me too is when they do finally get around to doing time sheets, they got it implemented, they did a good job, everybody's doing it, they're relieved and happy. And they're like, okay, good, we're there. We're going to take a couple years off now and rest. It's like, no, you've got a lot of work to do still. So, we can't view some of this foundational, I call this foundational technology, it's stuff that absolutely should have been in place 10 years ago, 15 years ago. ERP system, time sheets, invoice routing. There's a number of things that really represent that foundational layer, and you really can't safely move to drones and IoT and robotics and shop floor and fabrication, all this other stuff, until you have these foundational pieces in place in my opinion.

### **Mike Merrill:**

And to your point, I was looking at the LinkedIn page and some posts by one of our customers, BakerTriangle down in the Dallas Fort Worth area. They run 1500 plus employees. They're a large, large interior drywall contractor at least by definition. However, not only did they automate this probably a dozen years ago with our solution, but they have huge warehouse spaces where they're prefabbing large sections of buildings. And they have become so innovative. They are not just a drywall contractor, they're leveraging these things that you're talking about every day and being substantially more profitable and green while doing it.

### **Christian Burger:**

That's good. And I think, Mike, the thing that we got to recognize I think is that you and I both see customers and clients who are there, but for every one of them, there's probably about nine others that are sort of middle of the road or lagging. The same is true of the technology itself, I mean, there's some pretty advanced technology out there, and one or two companies have it implemented for every eight or 10. I do think that we have to be careful that we don't send the wrong message to the market, that you need to be chasing

after all the cool shiny objects because there's too many of them. Some of them are untested.

And there's too many things that need to be put in place, and companies need to have a practice, a habit of leveraging technology effectively. And until they get that practice in place, buying new stuff, it's kind of like exercise equipment. Owning exercise equipment doesn't help you. Using it does. And if you just got a bunch of unused gym equipment in your garage, it's not going to help you.

### **Mike Merrill:**

What a great analogy. I certainly see the same things that you do. And I think with all of these advances in different industries, different practices, again, not just in new manufacturing plants, but again, these construction sites and buildings, a lot of them really are being put together in a warehouse somewhere and shipped on-site to be fastened or installed. And one of the things that, as I've read and studied this topic, the level of accuracy and the quality control that you can get in a controlled environment is second to none.

### **Christian Burger:**

In fact, what's happening is that owners are starting to stipulate that certain percentages of the work has to be prefabricated in a shop. The safety, the climate control, the QA/QC, all of those are positive things, but you got to remember, in a traditional construction company, they have what could be called infinite resources. So, you've got 10 job sites, and each job site has its own supply chain, and each superintendent and project manager are in charge of that supply chain. I need another sub, I need more material, I need more labor. I go get it.

With a prefab operation, you're now funneling a lot of work through a single phase, which then means confined space, limited labor, limited equipment. So now, I actually have to coordinate the work through the shop. It's not like one job goes all the way through the shop, and then when they're done and shipped out, the next one comes through. They got three or four jobs going on at one time. And so now, there's a lot of coordination. You got to tag things, you got to stage it, you got to plan logistics. And what's interesting, Mike, is that almost no one has an ERP system prepared for

that kind of work. None of the construction solutions that are out there, that you and I know about, has what you would consider to be fabrication management. It's sometimes called MRP, sometimes called shop floor control. It's very schedule driven. And the ERP systems we have don't do that.

And so I feel like some of the manufacturing based ERP solutions that also have job costs are going to be making their way into the space because they do include that, or potentially, and there's about four or five standalone shop floor kind of programs that will be implemented, deployed by these fabricators and integrated back to the ERP solution. But it is a reckoning that I think is coming. And right now, a lot of the fabricators that I've worked with, even big ones, seem to be managing the shop floor with spreadsheets and dry erase boards and kind of traditional methods that way.

**Mike Merrill:**

Yeah. And to your point, and this is kind of a sidebar to that conversation, we're seeing the adoption of SAS technology and web-based ERP systems, and the importance of cloud access and collaboration in one system, not one installation, so to speak.

**Christian Burger:**

Well, for sure. The deployment method and the functionality within are sort of two separate things. And actually, what's another element of this is, to your sort of outline to me was the mobile aspect of things. Think about this, if you've got a foreman or superintendent in the field and he's used to picking up the phone and calling a sub, calling a supplier and say, bring it, now, he's actually having to get on a mobile application, and say, send me the ductwork for the first floor. Well, that's got to go to the shop guy who's fabricating that, and he's got to stage it up, load it on a truck and get it out to the job. Well, when is that coming?

See, that's the other thing that's pretty fascinating about all this is, in a manufacturing environment, your demand is known for a period of time. You know what your demand is going to be through that shop floor. And you can plan for it, mostly, there's some changes. Well, in construction, as we all know, the general

contractor is dictating when things are going to happen and the speed and the pace and deliveries and all that stuff. And then you've got rain or snow or whatever happens. So, there are so many variables that affect the delivery and the demand out to the job site that I would not want to be the dispatcher in the shop trying to manage the shop floor because I think it's almost a feudal kind of battle.

**Mike Merrill:**

Yeah. As you were talking about that process and how you've got a finite resource and limited time and space to accomplish certain things, I think of a cabinet shop, that's a perfect example of a prefabrication facility. They're building doors, putting all the different components together in order. You can't do it in the wrong order or it won't look right.

**Christian Burger:**

No, you're 100% right. But I'll tell you, the only problem with that analogy, Mike, is that cabinets aren't that heavy.

**Mike Merrill:**

Good point.

**Christian Burger:**

So they can be moved out in the way, they can be taken offline, put aside, run another order through, and then finish it up. With big mechanical stuff, it's a lot harder, and you only get one shot at some of this. It is an absolutely fascinating time to be in the industry to look at all the transitions that are being made. And it's that demand and that expectation that the industry is creating that I think bodes poorly for the contractors that are still working on invoices and time sheets because, I mean, it's a world of difference.

One of the things you asked me about at one point was, how our IT department's changing to manage this change, or how do they need to? And I would say that it's 50-50. I still run into construction companies who have an IT shop very focused on the gear. It's infrastructure, it's servers, it's how do we get out to the cloud and backup and redundancy and it's cyber security, which is important for sure. But it's not

innovation, it's not leading, and it's more maintaining. I think that we need more.

And one of the things I hear from a lot of CEOs and companies is frustrations that they have with their IT shop is no leadership, no vision. Now, admittedly, the rejoinder to that from the IT guys would be, tell me what you want. And I think that's a bit of a cop out. I think that it's a combination of the two. The CEO and the top of IT person in a company should be able to have a conversation on something other than cost, about where's the company heading, where's the demand coming from, what are the priorities, and then a little bit on how do we get there. That has not been the traditional conversation between the CEO and the IT director. The IT director comes in and says I need some new servers. The CEO says how much money. They say it's this much money. He says okay or no. That's the depth of the conversation. And that's frustrating to me because I think that there's so much more needed.

So one of the things that I do talk about sometimes is the need for IT to restructure, to meet the current demands of the organization, and not to meet the past demands. And that means sometimes that the IT director needs to be an IT manager, or the IT manager needs to be a CIO or an IT director. And that potentially, you break IT into two, with infrastructure being one department and help desk and backup and all that. And then the other group is an application group that works specifically with estimating BIM, VDC, project management, accounting and HR. And that group is very customer facing. I think that's a good look for an IT department in today's world.

**Mike Merrill:**

So what I'm hearing is you're saying, one part of that would focus more on the hardware side, the network, those things. And the other one is innovating and keeping out ahead in technology.

**Christian Burger:**

Yes. One of the big changes, Mike, that I've seen, I'm sure you have too, is that IT is no longer the domain of IT, or strictly IT. You now have, sometimes they call it shadow IT, which is a bit of a darker name for it, but I like to see companies, I've seen every single client

that we've had that has invested in a business analyst, somebody, a role specifically focused on process improvement and deployment has paid for in spades. They've been able to get solutions up faster, better adoption. It's been a homerun. So with a business analyst, you've got somebody there available to help with all these new solutions. It's not like the old days when IT was expected to implement everything, and when it was done, roll it out to the group.

The other thing that's changed is you really, really have a much more experienced tech savvy user base now. They're not satisfied to sit around and wait for stuff to be delivered. They're ready to implement it now. And so, all IT needs to do is say, I'm here, I'm ready to help, what can I do? And support it to make sure they don't make bad decisions. But otherwise, let the teams go at it. And I think that that's another core competency that the IT departments need to have is being able to manage teams.

**Mike Merrill:**

So what I'm hearing is in construction, oftentimes, we're in our own way, we're the sub that's in the way really.

**Christian Burger:**

Well, when you say that, do you mean the IT department or the software company?

**Mike Merrill:**

I just mean as an organization, we're so focused on the tangible and the things that we can see. We're so great at following a blueprint of a plan to put a building in, but we don't have a business blueprint.

**Christian Burger:**

I would say the business blueprint, many times there is a sense of where we're trying to go. I talk to heavy civil contractors about what they're doing, and they're focused on trucking, equipment, manpower, the normal stuff. And so, we know what the things are that we need to improve upon, but we don't always know, and then the problem is that we see something cool on the internet, somebody sees a web demo or they talk to a peer and they're like, oh, man, we implemented



this solution, it's great. Well then, all of a sudden, we're going down the rabbit hole of looking at that solution, evaluating it, maybe even implementing it. But is that part of the overall strategy? And how are we implementing it? And what are we solving for? I don't know. There's been a lot of poorly deployed technology out there. You've seen it and I've seen it. And I think we've got to be much more disciplined about how we go after that now.

**Mike Merrill:**

Yeah, and it is the core of the business that I'm in and that's getting live field data back to the office, giving that visibility to everybody so that those key decision makers, those people that are involved in ownership management and that are really accountable for results have visibility so they can make better decisions. I think that's part of your business too.

**Christian Burger:**

Very much so. We do spend a lot of time when we're implementing a solution getting the process mapped out correctly. And then we lay the technology on top of that, rather than put the technology and then figure out the process. Because sometimes I feel like scope increases when you're in the middle of the deployment. Oh, wouldn't it be great if we could do this and this and this. And I think also sometimes we lose sight of what we're solving for just so we can get the solution implemented.

**Mike Merrill:**

You talked about this at the beginning, I mean, you've been at this 25, heading into 30 plus years, I know one of the things that I've known you for, and then I think the industry recognizes you as is an expert in performing an audit of what a company's resources are, what things they have in place, and what those gaps are, and then a plan to implement and roll out things that will solve those gaps.

**Christian Burger:**

Well, yes. Sometimes we get called in and it's like help us replace this system. Whether it's time cards or invoicing or HR or project management. But other times, people call us in because they've got too much.

They've got too many problems that they haven't been able to address and they don't know where to start. So then we take a deep breath, take a hard look, kind of clear out some things and put together a plan.

And I would say most of the time when we've done a planning process of that nature, there's three to four years of work to be done to get everything deployed, because there will be things that you can get started on right away and you get deployed right away, but you have to be careful of pace. It's kind of like running as an exercise. You don't start with a marathon, you don't start with a 10K, a half marathon. You really start with a mile, two miles, three miles, 5k, or 10k. You start easy and build up. And that's the way it is with the technology as well, I think you have to be mindful of what your organization can stand.

One of the big mistakes that I think companies make in that vein Mike is, you get a CEO, maybe even a new CEO or a new CFO, and they're all gung ho and tech savvy, and they're like, yeah, we got to do this stuff. And they really don't take a look around at the organization in total. You're never going to have 100% tech leadership in your workforce. That just doesn't happen. You might even be lucky to have 20% or 30%. Everybody else is kind of in the middle and they'll go along, but they're not going to lead. But you're going to have some laggards in there all the time, the people who just don't want to go. I think sometimes companies make the mistake of listening to the laggards. And they're like, oh, no. And you've heard it, Mike. How many times were you unable to sell a mobile time sheet solution to a customer because they said that one guy or two guys in the field wasn't ready for mobile device?

**Mike Merrill:**

Happens all the time.

**Christian Burger:**

So, the problem is, they shouldn't be listening to those individuals. They can ignore them, that's fine, but don't listen to them and let them dictate the strategy of the company.

**Mike Merrill:**

They got the wrong guy driving the bus if that's the case.

**Christian Burger:**

Exactly. Exactly right. I think you want to also decide, you're not going to be at the tech front of every new thing coming out. You can't be. So, you really need to decide what's important to the business. And I'll give you an interesting metric that we use over here to measure what to go after.

So when we look at a process, pick a process, when we look at that, we measure it on several fronts. Is it inefficient? We know what inefficient looks like. Paper, spreadsheets, email, many hands. It's inefficient. Well, if you've got a process and time sheets are a good example, there's a lot of them every week. They're very important and it's manual. That's a priority. Got to fix that. There's another one though and that's risk. We look at a process and we measure risk. If this process doesn't happen, bad things happen. Well, then, even if it's not inefficient, we better fix it. Good example, insurance certificates for subcontractors on job sites. That's not overly time consuming, but if we don't do it and something bad happens, it's expensive.

So, when we look at a process, we weigh inefficiency and we weigh risk. Sometimes we find both are bad, in which case it's even more critical they be addressed.

**Mike Merrill:**

So really, and I've heard this throughout most of what you've shared, the priority in order that you execute on any of these plans is almost important as a plan itself.

**Christian Burger:**

I think so because one of the things you definitely want to do is, I think we all kind of knew this from day one in business is, you want to have kind of a home run or something positive as your first outcome. You don't want to have this big, audacious goal and fail. And so, do something you can succeed at. One of the other things that I was prepared to talk a little bit about is, what are the critical items, things you need for good deployment?

And one of the things you need is executive sponsorship. I don't know about your company but when we do implementations, we absolutely insist upon executive sponsorship. We need somebody fairly high up with influence who can help us when we need the help. You can't delegate this down to a project manager and say here, go make it happen and not give them any backing. There are a number of times in a deployment, typical deployment where we need a decision made that takes a president or a VP. We need resources committed who aren't getting committed. We need a vendor, little talk with the vendor about commitment. Whatever it may be, we need to send a message to the organization that this process is really important, and we're going to do everything we need to make it happen.

So, the executive sponsorship is key. There's other things too, but I feel like that's one of the more important ones. And we didn't use to pay attention to that very well back in the old days I would say.

**Mike Merrill:**

And exactly what you're saying, we've learned through the school of hard knocks of being in business that you don't have that executive sponsorship, just because you get someone to assign a check or make a purchase of a software system or solution or any kind of tool, it doesn't necessarily mean that when things get tough or when you encounter a challenge that people are going to bail out on that. You need executive sponsorship to say, oh, no, no, no, this is what we're doing.

**Christian Burger:**

Yeah, exactly right. And force people who are reluctant to step up.

**Mike Merrill:**

And I think, again, you've been at this a very long time. I think one of the things, and you probably don't work as commonly with smaller companies, but how does SMB, someone with 10 to 50 employees, how do they get involved in technologies like these we've talked about today, and kind of get on that path to improvement?

**Christian Burger:**

I would say there's a couple of things. One is, take a look at the organization and determine where you're going to get the most value from technology of some kind. If you're a subcontractor and you've got a lot of labor, maybe you've got a lot of equipment, well then, you need systems in place to handle the labor, handle the equipment. Don't be futzing around with other technologies that are cool and interesting but maybe aren't adding immediate value.

I also think that typically in a company like that, you have a champion. It may not be somebody working in it, it could just be a really progressive minded project manager, or a really progressive minded HR manager, something like that. And let them have some rope. Give them a little bit of a budget, give them a little bit of time. Have them pilot something. I would say those are good, good options. It doesn't have to be this big plans committee effort all the time. I like R&D, I like R&D under control. You can't have project managers just running out, signing up for project management software without any control because that's not really R&D, that's just anarchy. So I think that that's a way to help with that.

**Mike Merrill:**

What I'm hearing you say and what I know to be true is that software of any kind requires users. It's not going to do everything for. You got to plug in and get to the benefit that the software can provide.

**Christian Burger:**

Absolutely, absolutely. You know, Mike, I want to make sure that you and I don't run afoul of our listeners too. We promoted the idea that this was about robotics. And we should chat about that for just a bit. When I was doing a little bit of thinking about this podcast and what we needed to talk about, particularly as it related to robotics, one of the things that everybody points to almost invariably when it comes to robotics is the brick mason. Have you seen the robotic brick mason?

**Mike Merrill:**

I have, yes.

**Christian Burger:**

Everybody looks at that and says, wow, that's pretty cool. I think that's very indicative of where we are with robots on a certain sense. Now, there is a distinction between that and maybe just simple machinery. How much does the brick mason, the automated brick mason really cognitively know in order to do that job. And can it call out for more mortar when it needs it? Can it call out for more brick when it needs it? How does it adjust for changing conditions? So there is a little bit of a philosophical debate around that. However, it's also fairly expensive at the moment. It's pretty productive but it's fairly expensive.

So this is the type of technology where if you're a big masonry contractor and you were trying to test this out, you might buy one of those machines, or even rent it and actually put it on a job. You're not going to make a lot of money on that job, you might even lose a little bit of money but you get a sense of what's possible and whether or not it can be applied, or are we too early, and then continue on.

The other thing I was going to point out to you is that in some ways, I feel like we've already been at this point of robotics before. When you think of, if you've heard the term stateless grading.

**Mike Merrill:**

Yes.

**Christian Burger:**

And so we already have computer equipment that communicates via satellite or cell technology and GPS signal with bulldozers and pans and scrapers. And so, they're guided with computers already. And so, now we don't need a 20 year veteran operator on a pan or a scraper or a backhoe. We can actually let the computer do the work or a lot of the work. So, is that robotics? You still need an operator but there is machinery that's being guided along the way.

I also think that in some ways, 3D is a bit of a form of robotics. It doesn't have arms and legs but it is a device that is actually printing concrete to spec. And I think that's going to be one of the things that is entering the equation for us.



There's another one out there and I don't know if you've seen this one or not, but actually does the rebar tying. So there's this large metal kind of bar that has robotic arms down, and it will go over a pad of rebar that's been laid in place. And then the arms just drop down, do the tying, move the next one, do the tying. So, we are seeing more automation of functions on construction. I think we have to because if you remember just before COVID hit, we were dealing with an extreme labor shortage. And so, I'm not sure that we're going to get those guys back. And the industry is just not pulling new trades in. So I think that between the prefabrication that is happening and the movement in of robotics, I think the writing is on the wall.

**Mike Merrill:**

Now, that's an interesting concept. The labor shortages that we've seen and just the disruptions in the market have been very interesting and unprecedented for sure. I think the youth today are not going into the trades like they were 20 years ago.

**Christian Burger:**

No, for a variety of reasons that probably merits a separate discussion. And you take that and I think that owners are starting to demand a better way because owners are tired of poor quality delays, budget overruns, the unsafe conditions, all the things that our industry has been plagued with for a long time. And so, when you look at, I mean, the whole goal of prefab and robotics is to improve quality, improve dependability, reliability. It's going to be done this way because that's what the machinery does, it does it that way all the time. Quality speed, and ultimately, I think to some extent, lowered costs. Now whether or not the lowered cost benefit accrues to the contractor, to the owner, it's split, we'll see.

**Mike Merrill:**

And then safety. A robot's not going to get COVID either.

**Christian Burger:**

They don't get COVID, they don't take cigarette breaks, they don't file labor grievances. There's a lot of things that are beneficial in that way. I guess I wanted to

be mindful that some of your listeners may have heard the term RPA, which stands for robotic process automation. And that's a different type of robotic processing that's being applied to a lot of computer and data work. So, where RPA could actually read an invoice, know what it's for, know how to code it, know where to route it. So now we don't have to scan and type in all that data.

One of the crazy things that we're going to look back, Mike, we're going to look back and laugh really at the fact that back in the old days input into computer programs was done by fingers. Getting automated with keep punch input seemed like an innovation because it was better than paper and pencil. But now with RPA, you look back, man, there's a limit. Even if you are 100 words a minute typer, you can't type as fast as a robot can read and input.

**Mike Merrill:**

And you're still going to have errors, right? You're still going to have typos.

**Christian Burger:**

Indeed. Just as a little anecdote, I was at a construction company, it was a big specialty contractor, I don't know, last year sometime. And I walked into their main office where they did all their processing. And on the front desk in the lobby there, the mail had just come. And there had to be about 400 or 500 pieces of mail that were invoices to be processed. Excuse me. And that means somebody's got to open it, look at it, scan it, tag it, route it. And now, with COVID, what have you got? You can't bring all those people into the office to read all those invoices and deal with them. So they had to go to some kind of more efficient processing. I think we'll see RPA being deployed in more places than just invoice routing.

**Mike Merrill:**

Yeah. It's amazing all the different areas and kind of tunnels we can go down in in improving overall construction. Sounds like we need to do another episode down the road so we can have some more dialogue.

**Christian Burger:**

There's absolutely plenty to be excited about. But at the end of the day, I'm sort of a pragmatist at heart, and I would say, if it's not adding value to the bottom line, then it's fun to watch. And it's important to know where these things are going because you don't want to have a blind eye to where it's heading. But you do need to be focused on the here and now. And I would much rather that a company have three or four solid pieces of technology that helped a given process that's important to the business and continually trying to improve processes.

One of the things that I feel like, and maybe this will be in closing a little bit to your last point, is what should the IT director be looking at and focused on. And there is technology that the IT director themselves should be looking at for the business, not estimating project management, human resources, etc. So, middleware. We're seeing middleware deployed much more actively now than before. So you'll have a piece of software that sort of sits at the enterprise level and takes in data, transforms it, and provides it to another system. Gets data back, transforms it, puts it back.

So there's this back and forth that's being handled automatically. Back in the old days, we had this antiquated batch upload, where you'd have to browse the file, find the file, click it, upload it, and it would air out. I mean, it was all manual. So middleware accomplishes that.

The other thing we've got to be on the lookout for or be planning for is big data. Big data was being used as a term in our industry, I feel like prematurely. We had big files. We had point clouds and we had drawings, we had photographs, we had videos, we had a lot of content that was big, but we didn't have legitimate big data. Now with equipment that's providing telematic data and biometric solutions like heart rate, temperature monitors, things on our heart hats or wristband, what have you, we're able to get big data in and can start to do analytics. But our systems that we're using aren't really prepared for that. So consequently, if you're a pretty savvy IT director today, you're being mindful of data warehouse and BI. And you should have your own enterprise version of that, rather than the data warehouse and the BI tool that your ERP system gives you versus your HR system, versus your project management system.

I don't need eight BI tools in different applications. I want one BI tool that I can look at for everything. That's a good goal and I think it's out there. But that's what the IT directors should be focused on now, in addition to supporting the user community.

**Mike Merrill:**

Wow. A lot to absorb and digest. Thank you so much, Christian. I've loved our conversation today. You always have a lot of insight to provide, and your expertise is appreciated by myself and our listeners as well.

**Christian Burger:**

Happy to do it, Mike. I appreciate you asking.

**Mike Merrill:**

So as a closing question, just one thing I like to end on. What's one hack or kind of process that's been impactful for your business success that you've kind of adopted and made a key element to how you operate your business today that others might be able to learn from?

**Christian Burger:**

I do appreciate that question. I think I also teach, I teach class in Northwestern in the fall. I find that asking good questions is actually more valuable than anything else. It's more valuable than anything I know, is really asking good questions. And so, if you're going to interrogate a process, sit down with a group of people and really look at what you're doing, well ask good questions, because from the questions, you will learn what you need to know about how to fix a process or what's broken.

I like to think and plan ambitiously. I feel like I don't want to just focus on, like today, what can we fix today? I need to fix something for the future, because if I only focus on today, then when I get to the future, next week, next month, next year, I'm like, well, okay, now what? So I want to be thinking ahead. I think that's kind of critical.

The other piece when I do any work at all is always focused on developing a strong team. And you've seen this in your business, Mike. You know going in, when

you've got a strong team available to help deploy your software, it's going to go well, no matter what. And where if you've got a weaker team, it's a lot harder and a lot more risk. So I want to have strong teams available.

I also feel like, the last thing I'll say is that I really like for people to understand why. Why are we doing this and how is it going to help? Not just here. Click here, fill this in, post this. The mechanics aren't usually interesting. I mean, they're necessary but they aren't interesting. But helping a guy or a gal figure out, why are we doing this, what's the purpose, that feels important as well. And I feel like if I'm doing those four things, I'm generally in the right place.

**Mike Merrill:**

That's fantastic. So ask more questions and make sure they drive to the why.

**Christian Burger:**

Indeed, indeed.

**Mike Merrill:**

Well, thank you again, Christian for joining us today. Very much enjoyed it. Thank you listeners for tuning in to the Mobile Workforce Podcast sponsored by AboutTime Technologies and WorkMax. If you enjoyed the conversation today and were able to learn anything new or insightful, please follow us on Instagram @workmax\_ and subscribe to the podcast on iTunes or your preferred podcast platform. Also remember to leave a five star rating and review, which will help us to continue to bring these meaningful and helpful conversations to help improve your business and your life.