



Cadence Bank Podcast: In Good Companies

S4E9 - Turning Data into Gold: Mining the Power of Data Intelligence with Clarity Innovations

OVERVIEW: Information brings us food for thought. It grounds a lot of our discussions, and perhaps, most importantly, it gives our work direction and purpose. This is why on this podcast, we bring you expert guests and start every episode with a little bit of data! A recent survey by Deloitte finds that 83% of business leaders believe leveraging human data can reap benefits for both their organization and their workers. But only 19% feel equipped to start this work. So how do you bridge that gap? We find out, with Mike Lanciano and James Chapman, engineering executives from [Clarity Innovations](#).

[00:00:00] **SFX:** Intro Music In

[00:00:00] **James Chapman:** From a raw data perspective, a lot of companies tend to focus on financial data because it's already very orderly, discreet and easy to process. And what's more difficult is to understand things that are less discreet, like strategies that we can reuse... And do it in less of a "feelings way" and more of "a data-oriented way."

[00:00:02] **Patrick Pacheco:** I'm Patrick Pacheco and you're listening to Season Four of *In Good Companies* from Cadence Bank: the podcast where we have your best interest at heart. Because at Cadence, we're much more than a provider of financial services. We're a lifetime advocate driven by your success.

[00:00:10] **SFX:** Intro Music Out

[00:00:10] **Patrick Pacheco VO:** If you've been listening to *In Good Companies* often... And I hope you have! You might have picked up on how we do things around here.

We bring in interesting guests... And we start every episode... With a little bit of *data*. And that's because data is a powerful tool. As a listener, it gives you food for thought; it grounds a lot of our discussions; and most importantly, it gives our work direction and purpose.

In fact... You know what's coming here... According to a survey by Deloitte... 83% of business leaders believe that leveraging data can reap benefits for their organization –and for their workers too.

But here's the thing. Only 19% are ready to take on that work. So how do you bridge that gap? Well, why not meet with today's guests?

[00:00:10] **Mike Lanciano:** My name's Mike Lanciano, I am the Director of Engineering Growth at Clarity.

[00:00:14] **James Chapman:** Hey, I'm James Chapman, I'm an operations engineering lead here at Clarity Innovations.

[00:00:20] **Patrick Pacheco VO:** When it comes to data, Mike Lanciano and James Chapman are miracle workers.

Both are engineering executives for *Clarity Innovations*, a firm that connects people with accessible digital services, and cutting-edge data solutions. From government to commercial organizations, they have helped clients tap into the power of data.

In today's episode, Mike and James reveal how to forage information inside our companies... And put it to good use! Because data can improve our processes, our products, *and* our business culture...But only if we turn it into intelligence.

So to start, let's break down what *that* means.

[00:00:44] **Patrick Pacheco:** Your company mantra is turning data into intelligence. Can you break that down for me? Let's unpack that a little bit on what we're talking about.

[00:00:51] **Mike Lanciano:** When you have somebody who is looking at a dataset, we're talking about making sure that the data is organized, visualized, and tells an appropriate story, and making sure that we identify the key trends and points. Data is just data. The intelligence point is bringing to the surface the things that matter to you overall. Data is ultimately what we get to because that's the new oil, so to speak. It's the new thing that everybody is trying to get to to enrich their environments and their lives. I'll pass it over to James in a minute because I'm sure he has a lot to add there. Clients have sometimes questions that they know they need to answer and they think that they have the data to answer it and that data may be just difficult to wrangle, right? But also, sometimes clients don't know the data that they have or the things that could ultimately be used to make decisions. So looking for new and novel techniques to understand okay, I have this data, what does it tell me? What does it do?

[00:01:45] **Patrick Pacheco:** James?

[00:01:46] **James Chapman:** Yeah, I agree 100% with Mike. One of the things I wanted to tag on about data is that our customers have almost all the data they need but they're incapable of extracting answers and solutions for their problems out of that data. It's an evolving landscape. You need someone who's immersed themselves in that world of data markets to understand hey, we came in to help you solve X, Y, Z problems. You guys have this data but there's a complimentary data set over here that you don't know about. And if we bring those two together it would be like peanut butter and jelly or peanut butter and chocolate, whatever your preference is there, moment. So we come in and help them wrangle it and get some meaningful value from the data. Because data on its own is useless.

[00:02:26] **Patrick Pacheco:** So making that data easier to utilize. Can you walk me through a typical intelligence solution, something you guys have done that might highlight how you guys work?

[00:02:37] **Mike Lanciano:** Data has a lifecycle to it, right? We talked about data discovery, right? So everybody wants to get to this ultimate state of deriving intelligence and looking at those things. But typically an end-to-end solution looks at the current data sets that you have, cataloging that data, and moving that data into the proper place where it can be fused, organized, sorted, cataloged. And that's all of those things that an end-to-end solution will start doing. And once you have those types of data structures in place, right, moving into applying different solutions on top of those data silos. And understanding how to drive those intelligences whether they be machine learning algorithms like applied statistics, trying to understand what's in the data. And then ultimately to the end of that which is visualizing and delivering all of the things that come out of those insights in a way that makes sense for the organization to understand it, right? So whether it be a dashboard or whether it be analytical reports, all of those things go into a specific visualization.

[00:03:45] **Patrick Pacheco VO:** To turn data into gold, look for it in every corner of your business! And don't be afraid to break down barriers. The more you explore, the more potential you'll find in your company. Take it from James.

[00:03:45] **James Chapman:** I mean, companies are organizational structures. Usually, just like an org chart, there are walls that we put up between different divisions. And it's done out of necessity. Not everyone needs to know everything all the time, that would be overwhelming, but finding a way to lower those walls between organizations to take an honest assessment of the types of data a business could use that you already have. It could be things as simple as what skillset sets are resident in my workforce. That's something Mike's very passionate about. And it's a more complex problem to solve than it sounds on the face.

And I think from a raw data perspective, a lot of companies tend to focus on their financial expenditures and optimizing outgoing funds. That's a valiant effort, but I think companies prioritize that financial data because it's already very orderly, discreet, and easy to process. And what's more difficult is to understand things that are less discreet like what is our proposal investment versus win rate? Being able to understand those winning themes and strategies that we can reuse and do it in less of a feelings way and more of a data-oriented way is what I think gives Clarity a little bit of a winning edge.

[00:04:47] **Patrick Pacheco:** Very interesting. So what data do businesses tend to gather? You said financial information. What other information do businesses tend to gather? And what are they starting to gather that maybe they didn't gather before?

[00:05:00] **Mike Lanciano:** I think it depends on the business, but especially when they have a lot of unstructured data which could be things that are not quite fitting into an Excel spreadsheet like text. So things that you've written about, things that you've published like a website, things that are written in a little bit less of an I can linearly graph this type method. Those are things that I think companies are starting to turn their head towards and say, "This is stuff that I need to collect to help make larger graph decisions about how close they are to certain business opportunities. I don't know that companies are collecting more data, I think that they're just realizing that they can derive data from different sources or different tools that they didn't think was possible years ago.

[00:05:53] **Patrick Pacheco:** I can remember working and going into a company and you had to put your profile down. And pretty much this would be this beautiful set of questions. You'd put your name and whatever your phone number was. They didn't care if you filled out anything else. Now they're asking you to fill out the profile, which means that they're utilizing that for some purposes. You'll see it all the time, you're 87% finished. Let's get an A+ by finishing the rest. That's been just a definite change. So I guess it's fair to say that companies are starting to figure out the power of data or intelligence, I guess, that you can derive from that data. You guys seem to be very end-user-focused. A lot of time is spent on the end-user experience. Why do you guys do that? Why do you deem it so crucial?

[00:06:35] **Mike Lanciano:** It's a critical part of who we are. It goes back to some of the founding stories where there's a real issue sometimes when you're trying to accomplish something whether it be on behalf of anything that you do organizationally or the tools that you're ultimately trying to use, they'll help you solve that problem. That was a real pain point that we were suffering with when this company was founded. And therefore having a direct correlation to the user, and having a system that people not only want to use but enjoy using ultimately breeds capability because people are using your system, and weirdly enough providing you more data to make more intelligent decisions with ... Because your system isn't being circumvented by

some other process, and people are not going outside of your software to try and solve a different problem.

[00:07:28] **Patrick Pacheco VO:** Data can teach you a lot about your business; from financials to employment, to cultural needs! But to unlock these prospects; data has to be translated into *human-speak*... So for Clarity Innovations, the name of the game is *accessibility*.

[00:07:29] **James Chapman:** One of the things that I've seen, and it's been throughout my career, is that sometimes I think people don't realize how much data they have, especially when it comes to employment, HR organizations, the personally identifiable information. And then when your organization starts looking to derive value from that unstructured data, sometimes there's this moment of panic in that oh man, we have data that we have to protect. We have to look at our security. Not only are we thinking about our data and how we can get value out of the data, but now we have something that is potentially dangerous in the wrong hands, or our employees or customers would not want to be exposed. I think being aware of the data that these companies have, when they become aware of it, also pivots to a security mindset too like oh man, I need to step it up and protect this data more. So it's a good thing. I think it's less panic and more of an understanding of the great amount of responsibility that comes with having that data.

[00:08:27] **Patrick Pacheco:** Okay. And you guys can help provide that security and that protection of that data, correct?

[00:08:32] **Mike Lanciano:** Yeah. I mean everything Clarity does is through a cybersecurity lens just because of the nature of the business that we do. Data's no exception. We come from a lot of cybersecurity backgrounds so that's how we always look through data to make sure that we're carefully protecting assets that are valuable to companies, individuals, et cetera. Sometimes companies underestimate how much aggregate information can be useful in terms of things that you want to protect and how you want to keep those. So we talked about silos earlier. It's like some of those silos are intentional, right, because that data in aggregate oftentimes tells a little bit more of a story than you want to, especially if it's public.

[00:09:16] **SFX:** Ad + Music Transition

[00:09:16] **Patrick Pacheco:** So you guys provide a lot of data intelligence for other companies. How do you use it internally? I mean, do you guys practice what you preach here? What are some of the data solutions you've implemented at Clarity?

[00:09:28] **Mike Lanciano:** This is a huge passion topic of mine. My job title tilts towards people and making sure that our folks are equally satisfied in their careers, and their jobs, and the things that they need to do day to day. I care a lot about people. I care a lot about how we are

mapping people and how we understand whether or not we're appropriately utilizing people to their skills. We've talked about skills mapping. That's one type of place where we've used data intelligence. And we've used a lot of non-traditional data to look at how we can derive that information based off of a person's skill set. So, for instance, when you say, "I'm a Java engineer," right, what potential other areas you could branch out to? We've even used it just to map our internal company, right, of how we organize around communities of practice. We organize folks into the cohorts of skills that they have. Software engineering, data engineering, UI, UX, and those types of things. And it'd be really easy to have an org chart and just make decisions. But what we found was when we looked at the data and we apply different insights to it, there's a fair bit of overlap of skills. So we use some graph technologies to look at how people would organize into communities of practice. We've also used a couple of different algorithms like LDAs and topic modeling to look at things that we've put public facing like our website, and our responses to proposals. Just map them to say, "Does the tone of these things, right, match the things that we say in our core values, i.e., are we putting out information that reflects our culture as a company? And are those messages the same? And are they aligned or are they not? And do we need to adjust those?" And that's a really hard question to answer. It's a cultural question. It's not something people think of as a data question. People are often like "Well, I read it, it sounds good, right, it sounds like my core values." As it turns out, you can apply some math to understand. If a machine describes Clarity today, this is how it would describe it, and then are those two things aligned? And I think that that was a unique problem set so we do apply those types of things internally to the company.

[00:11:54] **Patrick Pacheco:** Has all this internal focus on data management improved your culture?

[00:12:01] **Mike Lanciano:** I mean, I'd like to think so. We're a small shop. And relatively small, right? I think one of the things that we realized very early on in terms of data was context sharing. As an organization, as we scale and grow, sometimes some things get lost in translation as you work and you scale as a company, right? People have different cultural values and interpretations of that data in that context which means we have to help manage different contexts. And it's difficult, it's a difficult problem to solve. I would like to hopefully say that our application of technology has led engineers to understand the tools that they build also have meaning within the tools in the organization in which they exist. And that's I think permeated the culture. I think people are excited about us using technical problems to solve some of the harder problems that we have as we grow.

[00:13:04] **Patrick Pacheco:** That's great to see. I guess the internal use is more rewarding than anything else that you're able to apply it. Now you know it works. Now when you're going to go out and sell it, you know what you're doing works.

[00:13:13] **Mike Lanciano:** You touched on something that's also really interesting. A lot of clients don't want to be the test bed, right, of your ideas like you're innovating, you're trying new

things. And as these technologies evolve we're pretty good at usually getting the right thing out of the gate. And a lot of it depends on how well we've asked the question that we're trying to answer in the first place versus just trying to ... Take an open swing at it. A lot of times our customers love to hear that we've done this internally, right? That we've proven out that it can work, and we've proven that we can do these things. That's a really comforting fact to them. Rather than like "Hey, I read about this thing and you're going to be the first person to experience my first shot at this." That's key. That is true about our internal processes as well.

[00:14:08] **Patrick Pacheco**: You used a term earlier which I found fascinating. You said "solved data" or "solved technology". I mean, is there ever going to truly be solve technology or has it just changed so quickly that every time you think you've solved something you've opened the can of worms on 10 new things?

[00:14:25] **Mike Lanciano**: The solved technology thing, I don't know that the problem is ever solved. I think there's some foundational things that you solve that you carry forward. I think you apply new techniques to the same problem and you understand the problem differently. ChatGPT or any of these things is a good example, right? We were looking at a lot of this data before, and we were using certain algorithms, certain things to solve this, and then along came new technology to look at the same data and derive all sorts of new insights. The same data is there, the same data foundation, but the application of solving that problem has changed and evolved, especially in terms of efficiency and scale.

[00:15:25] **SFX**: Music Transition

[00:15:25] **Patrick Pacheco VO**: So, at Clarity, it's pretty simple: teach what you preach! In-house, they use data to hone in on their values, solve structural issues, and grow their company organically... And all this work – Well it's not mad science, but... It usually stems from experiment! Here's James.

[00:15:25] **James Chapman**: Actually, a project that was born out of my frustration and it was that ... I work on proposals with a proposal theme, something I mentioned earlier, and sometimes we see recurring themes. So when we go after one piece of work there might be themes that I can pull from past work that we've gone after where I don't have to reinvent the wheel I can reuse some of my content because it applies to this new problem. But we have so many work items and so many opportunities that we go after as a company yearly that we've quickly come up with this overwhelming amount of documentation and proposal data and it becomes hard to search through that and find what I'm looking for. And so I thought, well, hey, if I tackle this as an engineer our proposal team could benefit from this as well. Can I build a ChatGPT-type model that would ingest our proposal data and then we could talk to it like a chatbot to say, "Hey, what experience does Clarity have doing this? Or help me find this type of topic from our past proposals," and present that information. And even be able to tell you like hey, this is where I pulled that information from, this is ... It's this exact proposal. And so I went

down this three-week rabbit hole of pulling multiple open-source technologies and looking at open AI forums. And what I found is that it's something that's changing dynamically every day, this isn't solve technology. I think a lot of people are out there saying, "ChatGPT is the end and we've done it, AI is here." And that didn't seem to be the case. There's a lot of open-source engagement. There's a huge community about it. I stayed up late at night until 3:00 AM talking to some guy in Amsterdam who was just there helping me like hey ... He was excited that someone was using his project, and he was taking my feedback, and we had this mutual excitement. AI has injected this passion that I haven't seen in a long time. For myself, for that proposal project, I was frustrated because I couldn't find some content that I knew I had written in the past. And so I thought, if I can do this it'll make my life easier, not just now but for future tasks. It's going to be a force-multiplying effect for me and others on the team. And I think that's why there's this excitement around AI. People are looking at it saying, "Wow, this could have huge impacts on my daily life so I need to figure out how I can incorporate this." And that was what I was doing with this proposal project.

[00:17:41] **Patrick Pacheco**: I can imagine how useful the proposal software is having done proposals in the past. So James, let me ask you this. I'm sure there's some bad data out there. How do you sort through that? How do you identify bad data and make sure that doesn't get pulled into the good data?

[00:17:54] **James Chapman**: I mean, to be honest with you, working with bad data is a completely normal experience. It would be abnormal to have perfect data. Anyone that's worked with big data knows that when you start ingesting large quantities of data you're going to have malformed data that doesn't look the way you expect. You're going to have gaps in data. A good example is stock trading data, The New York Stock Exchange. Those data sets on trades and the value of stocks over time are one of the cleanest data sets we have out there. However, because of technological failures or special trading days, there are often gaps in time. People are very interested because you can make a lot of money on the stock market, in making AI algorithms that can predict what is going to be a good trade. But to do that you have to ingest this massive amount of data, you have to clean it, you have to fill gaps, you have to remove the bad data, you have to take the values that are empty or don't make sense for the data that you've ingested and fill those with placeholder values. Data scientists, one of the very first things they get very comfortable with doing is figuring out how can I take this data that I've gotten, how can I clean it, purify it, put it into a form that I can use to train a model, and then that starts the data science and the AI portion of the work. But you can't do that latter part until you figure out how to wrangle the data. Unless a data scientist has given me a data set that they've already cleaned, I've never seen a good raw dataset.

[00:19:17] **Patrick Pacheco VO**: It's easy to see how data can be a great tool for business. But when you're not an engineer, knowing where to start? Well, that's another question. So if you're sitting there thinking: how?! Instead, according to Mike, you should ask: why?

[00:19:17] **Mike Lanciano:** Start with the why, the question, right? I think that a great place is what types of questions about your organization are you trying to answer. It's a general okay, what are we going to answer and what do we care about? It's a great place to start. Something that goes back to even just your company culture. What are the differentiators? What are the things that you have? What are the things that make you different and how do you want to validate those things, right? So, for instance, we knew Clarity, our culture was a big thing that attracts business, and people want to work with us because of our culture. When we started asking questions, a lot of them were about our culture and what we care about. I would say also building a foundation is probably the next step. Everybody wants to jump to AI, insights, and all these other types of mechanisms. People want to just jump to the end conclusion, right, or I just want to put all of my data into ChatGPT and get the answers, right? Or do I just want to put all of my data into this thing and get the answer? And sometimes we get caught up on the end state of what we are going to do with this data and how we're going to ... What types of insights and all these things like that. But I think oftentimes we forget about the first step of just that architectural standpoint. Starting with a really good solid data foundation and cataloging, building the data architecture for people to federate and consume data in your organization is probably some of the easiest first steps to take. Even just identifying data sources, right? Where do I start looking? What data do I have? What data do I need? What are the gaps? I'm sure James has some things maybe to add here. Starting with what you're trying to answer goes a long way.

[00:21:09] **Patrick Pacheco VO:** Once you've identified your needs and collected your material... It's only the beginning of the road. Building data structure into your business is a process. So take it step by step!

[00:21:09] **James Chapman:** I think as a business, these things are not free. And it might not be a monetary expense it could be time and human capital. You have a limited amount of resources, it's the nature of life. We all have limited resources so we have to figure out how to direct those resources. And one of the things that I found helpful is once you know the problem you want to solve you can't say, "Okay, we're going to throw all these resources to get to that end state." I think it's much more helpful to try to come up with proximal objectives that are a smaller subset of your main problem. An example of that is when I started with the proposal engine I ultimately said, "The problem I want to solve is I want to be able to take the corpus of Clarity's proposal knowledge and I want to have a chatbot that I can interact with that will give me answers about our experience and help me" ... "Help accelerate my ability to write proposals." That was the big objective. But if I set out to solve that all at once it would've never happened. My first objective was hey, I need to get this data storage layer working so I can store data. And I got to a point where I had a chatbot that was working, and my goal there was I want to be able to talk to this thing. I want to be able to talk to this model and have it give me responses back. Now, it didn't give me perfect responses, some of it was garbled-up nonsense. But I had accomplished that proximal objective of now I have something that I can talk to like a chatbot that's talking back to me. And then I said, "Okay, well how do I change this to give me meaningful

responses?" And I got that working. But now my meaningful responses took five to 10 minutes. I would ask a question and it was spin for 10 minutes so it wasn't conversational. It was more like smiting off into the ether, going and grabbing a coffee, coming back hoping you had an answer. Kind of like dial-up internet. And so I thought well, okay, you can't wait 15 minutes, 20 minutes for an answer so how do I tackle that? And so having those proximal objectives that are moving you closer to the end that take minimal resource investment that's the ... Just throwing a ton of resources saying, "We have to get to the" ... "We have climb Mount Everest. And we're going to throw a bunch of money and a bunch of people at it and then go." Well, you're going to have a lot of people die. People aren't prepared to climb Mount Everest they need training, they need years of physical preparation, they need to understand the types of things they're going to encounter on the mountain and prepare to handle those. And then only when they're ready, and it's still going to be a treacherous journey, do you try to climb Mount Everest.

[00:23:17] **Patrick Pacheco:** So... Artificial intelligence, ChatGPT has come up a few times. It sounds like that AI can be useful in managing data. What type of cautions do you have to utilize with AI?

[00:23:30] **James Chapman:** There are, obviously, the people that are going to go out there and they're going to tell you that the Terminator's going to come back in time and kill everyone. AI's dangerous and it's going to take over the world. That's unrealistic, in my opinion, and at least not a concern that I hope to feel in my lifetime. One of the things that I see societally is that it's easy to assume that the experts have built this thing so that it gives you the correct answers for everything. I'm a programmer, and one of the hallmarks of software engineers is that we're lazy. That's why we get into computer programming, we want to make problems as easy and repeatable as possible. So if I have to do something more than once I'm going to script it. I think with AI laziness comes out and you might not always verify what you're being told. One of the dangers I see with the uptake of AI, especially for search functionality is that it could just become a source of truth. And by truth, I don't necessarily mean objective truth, it could be a source of subjective truth where you just assume because the AI told me this it has to ... It has veracity to it and it might not. One of the examples I experienced ... I was researching a particular topic and I looked for research papers through ITRIPLEE. Any large research paper database it's a lot to go through. I asked ChatGPT, "Hey, can you give me some white papers based on this topic?" And it spat back five or six different white papers and they all had very nice citations. And it had authors, the topic. The title of the papers sounds appropriate for what I was asking. And so I'm patting myself on the back. I'm going to bed, I'm going to get up the next day and I'm going to pull these research papers so I'm already ahead. But when I got up the next day and went to find those papers I discovered that almost all of them were fabricated. So the ones that it had given me real citations, or what appeared to be real citations, those papers didn't exist. And I think in the AI community they call that hallucination where it's just something that sounds right to a human and looks factual and believable but it's not real or it doesn't exist.

[00:25:28] **Patrick Pacheco**: Wow. Now looking through a broader lens, how should users, folks like me, should we look at those tools? I mean, the fact it can make up source information is concerning. How do we utilize those tools in a smart fashion? How do I utilize a tool like that?

[00:25:47] **Mike Lanciano**: I think it's really important to understand what a tool is built for in terms of how you consume this, right? If you're using AI every day, most people are, and they don't realize that they're using it, right? How many people have pulled up a streaming service and it says, "You would like this show, or you'd like this thing, right? That's a form of recommendation engine, right? You watch it and you're like "That was awful." I think it's one of those things of understanding that there are strengths and weaknesses to individual tools, and every tool will have its limited purpose for how you apply it. There's a really interesting part of technology that goes trust but verify, right? Honestly, it just may be a good life lesson for everybody, trust but verify. There's that component of understanding that these things are ultimately tools and you will have to sometimes verify your real-world scenario. That I think is a really good lesson. Because if you're basing your entire strategy whether it be business or whether it be life or whether it be anything, right ... If you're basing your entire strategy on the output of a certain algorithm, there's always the potential for a downfall. So I think understanding what a tool does and how to apply it to a decision where you still are in control. I mean, you're still what we call the human in the loop to make decisions and to make authoritative direction whether it be about your business or whether it be about your personal life or however you want to do those things. That's I think key. And just understanding the context by which each of these tools is specified and how it can fit into your process.

[00:27:25] **Patrick Pacheco VO**: "Being the human in the loop" - that means fact-checking what you find. And behind every great AI is an algorithm made by... You guessed it... Other people! Which means... Intelligence will be a little biased.

[00:27:25] **Patrick Pacheco**: When you're looking at all this data, is there a chance for bias built into data or conscious bias? Can AI develop a bias towards one thing or another? What about bias in data? How do you eliminate the bias when you're trying to come to an answer?

[00:27:42] **James Chapman**: When we talk about bias, bias is usually in the context of people and discriminatory acts or specific ways of doing things that are inherent to humans. Data's not alive, data's relatively flat but the data itself is curated by humans. I think our individual biases end up in the data. Because ChatGPT itself isn't biased, AI models aren't biased, all they have to work on are the data that we've given them, and they inherit whatever that data scientist has curated for them. So I do think you could have the opportunity to have biases and data but it's the person that's curating it, the data scientists that are building these models, pulling the data together are bringing in. I worked in an environment where we needed randomness at certain times. And humans aren't great at generating randomness or entropy. We all have biases whether or not we understand them and can see them. There are overt biases that we understand and acknowledge, and then there are the ones like the subconscious biases that we

can't acknowledge and understand or deal with. It's difficult because unless we have machines building machines it's hard to eliminate that.

[00:28:52] **Patrick Pacheco**: I would venture to say there are times of bias itself is necessary to make good use of data. I mean, bias I think gets a very negative term. But I think you could have a positive use of bias, not a negative.

[00:29:06] **James Chapman**: I went to a hacker conference back when ... Before ChatGPT was a thing anyway, and guys were giving a talk. They were trying to build a machine learning model that could ingest SSL certificates and determine what percentage of the internet you view as evil and what percentage of it is good. They told the model to focus on specific facets of an SSL certificate to make that determination. When they initially tuned their model, the answer they got from the other side was that 99.9% of the internet is a safe place. Everyone loves everyone and it's great. And there are no bad websites, it's safe to be out there, guys. Of course, the researchers were like "Well, we know that's not true because we're all sitting here in a room in a conference for hackers. If the internet were such a safe, great place there wouldn't be a conference for hackers like DEF CON Black Hat kind of thing."

And so they said, "So we tuned the model and we changed some of the parameters. And then what we got out the other side was hey, the internet is an awful place. Stay inside your house, lock the doors, and guard your canned goods. It's awful, don't go out there." And so they wound up on the opposite extreme. And all of that had to do with the bias of how they were choosing to evaluate the data and what data they were using to train their model and to make those determinations. It's very difficult to avoid having these extremes and biases.

[00:30:16] **SFX**: Music Transition

[00:30:16] **Patrick Pacheco VO**: Torture the data long enough, and it will confess to anything! But don't let that scare you. Instead, see it as a challenge, a tool even, to look at your information from different angles, and continue experimenting. So, ready to get to work? Well, not so fast. One last word of advice from Mike & James:

[00:30:48] **Mike Lanciano**: Investing in your internal processes and understanding your data organization is going to be key for a lot of business owners out there who are looking for how they're going to leverage these things in the future, and how they're going to consume AI to ultimately make better decisions in the future based on the past data that they have. And I think that that's going to be worth the investment. We know that these things are only going to progress in terms of the questions that they answer and how we answer questions going into the future. And everybody can benefit from how to use these tools, what types of tools they're giving, what types of data they have, and what these types of tools are going to be good at for helping their organization.

[00:31:39] **James Chapman:** I think even if you're a really small business ... Maybe you're running a coffee shop you only have a few employees. Business, even if you don't intend to leverage machine learning or things to optimize your processes with your data, I think a lot of companies could still benefit from just taking a close examination of what data they have. Because it's been my experience that companies don't even realize, in some cases, they could be inadvertently collecting data that they don't even realize they're collecting. And it could either be costing them in storage or it could be something that hey, there are legal ramifications for collecting this data I didn't understand. Just take a look around and inventory the data that you're collecting across your HR, your finances, your personnel, your operations, and your organizations just to have that comprehensive understanding of what it is you have. And whether or not you want to use that data to derive more value, that's sort of a later step. But just understanding what you have is a great first step.

[00:32:32] **Patrick Pacheco:** Great advice. Let me ask you this. So Clarity Innovations, what do you guys see as your next big challenge? What's out there that you're going to have to solve for that's ... That you're already thinking about or maybe keeping you up at night?

[00:32:46] **Mike Lanciano:** That's a great question. I have to think about that one a little bit. There's been explosive of large language models, how people consume them, and how people are going to expect to work in the future as integrated parts of AI continue to permeate all ... How everybody does business, right? And I think that that's the big thing right now is how are we including these new technologies, these new forefronts of AI, and all these different techniques that are coming to the forefront? And how do we include them in all of the things that we do day to day to ultimately build better products for people, and reach the outcomes that businesses are trying to achieve?

[00:33:35] **Patrick Pacheco:** James, what do you see as the next big challenge? Or what keeps you up at night... Concerning data?

[00:33:40] **James Chapman:** Clarity is a very people-focused company. We don't want a disruptive change to come along and overnight have to lay off our workforce because Clarity cares about those people. That's their livelihood, that's important to them. Just like those people have taken care of and made Clarity what it is, we want to take care of our people. And so I think we have a responsibility to look at what are those disruptive industry trends so that we can start gearing our people to be ready to take on roles in that new industry. Maybe some job roles of the past that we staff for are not going to be viable in five years. And we need to be able to start repositioning people now and getting them the skills so that we're not down the road five years and we have to be reactive, but instead we're prepared to meet that challenge head-on. It's difficult because, like any great technological disruption, it's hard to see what is going to shake out and what's going to happen. But I think the biggest challenge for Clarity is just being able to keep moving forward with our business of today but have a focus on how we prepare for what is to come. And prepare our people for what's going to come.

[00:34:45] **Patrick Pacheco VO:** Moving into the future... That's what data intelligence can do for your company! So to harness the power of data, keep this in mind:

Everything that shines is not going to be gold, so before you start digging... Ask yourself: Why am I doing this? What am I looking for? Narrow down what information you *need*; it will spare you time and effort.

Remember: data comes in all shapes and sizes. Sure, it can look like financial information... But it's also cultural values, employment rates, team efficiency... This kind of data is "unstructured" and hard to earn, but get your hands on it, it could change the game.

Once you've gathered your material, experiment with it! Every data question starts with a problem that needs solving. And you don't need Artificial Intelligence to do that. Just creativity!

But if you do land in AI territory? Well, be the human inside the loop. Remember: every AI works with content and algorithms made by *us*. And while data itself is not biased... We are. So look at your findings critically. And fine-tune your process! That's how you turn data, into intelligence.

I'd like to thank Mike Lanciano and James Chapman, from Clarity Innovations... For showing us that AI is not as scary as we thought. I think it's fair to say... Their cutting-edge expertise has made us all a little more tech-savvy.

[00:34:44] **SFX:** Outro Music Out

[00:28:14] **Patrick Pacheco:** In Good Companies is a podcast from Cadence Bank, member FDIC, Equal Opportunity Lender. Our production team is Sheena Cochran, Eydie Pengelley and Natalie Barron. Our executive producer is Danielle Kernell. This podcast is made in collaboration with the team at Lower Street. Writing and production from Andrew Ganem and Lise Lovati. Sound design and mixing by Ben Crannell.

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