



ScratchThat Podcast Episode 39: Artificial Unintelligence

Emily: Hey, I'm Emily Chenevert, advocacy nerd, Peloton enthusiast, wife, and mama to two and CEO of the Austin Board of REALTORS®. Every day, real estate is changing. So we're taking it to the experts to unpack major topics that you need to know about to be successful in this business. Scratch what you think you know about this business, and listen up for a fresh take on an old industry. Nationally, we're facing a real problem with housing affordability and discrimination. Homeownership is a wealth building opportunity, but the home ownership gap between whites and minorities hasn't improved in decades. One solution to look at is the use of artificial intelligence to help eliminate unconscious bias and promote equitable housing. But AI technology has its own limits. And when poorly designed the results can be alarming. Meredith Broussard, an artificial intelligence researcher at New York University wrote a book on exactly that called Artificial Unintelligence. We invited her on the show to discuss what we can do with artificial intelligence and how we need to make better choices about when and how we use it. Let's start at the very beginning with the easiest question we'll ask today, help my listeners understand what artificial intelligence really is.

Meredith: Well, Emily, thank you so much for having me today. It is very exciting to be having this conversation to be talking about this really important issue of AI and how it impacts REALTORS® and the real estate industry. So what is artificial intelligence? This is something that is the source of a lot of confusion. So if you feel like, all right, I use the term AI, but I don't really understand what it means. Rest assured you are not alone, right? We talk about AI, but there, if you, uh, very few people are really engaging with it, it's something that we use without thinking too much about it. So the easiest way to think about it is that artificial intelligence is math. Uh, the name suggests otherwise the name makes it sound like there's a little brain inside the computer and the computer is really thinking, but that is not at all true. That is just something we've picked up from Hollywood. So if you think about AI and you think about Hollywood things like Star Trek and Star Wars and the Terminator, and, how from 2001 a Space Odyssey, totally normal, but totally imaginary. So real AI is just math and that's what we call narrow AI. And Hollywood AI is what we call general AI, and that is the stuff about the robots taking

over the world and the robot uprising and the robot that is going to totally replace your job, et cetera, et cetera. It's very fun to talk about, but not at all remotely true.

Emily: So basic is not how taking over, but there is some degree of sort of takeover. That's perceived with AI. I want to talk a little bit about that with regards to our industry, we're working hard to strive towards maintaining fair housing practices across the industry. And it's been said that there are opportunities for us to leverage technology in better ways and specifically artificial intelligence, so that we could sort of curtail the natural bias that we all hold. But your book says if there's bias built into the AI also. So how do we split the difference between the natural bias that we bring as humans and the bias that the computers bring with the math that they're perpetuating?

Meredith: I'm so glad you asked that because the real estate industry in particular is very, very susceptible to, uh, making bad decisions with AI and those bad decisions can be illegal, right? So if you're using AI, for example, to decide between two potential tenants, don't do it, right. It is probably going to get you into trouble down the road. So think about AI as discriminating by default, for a long time, we thought that computers were more objective or more unbiased than people. And unfortunately it's simply not true. Computers are good at math, they're good at calculating, but that's it, that's what they're good at. They're machines. And the idea that a computer is more objective or more unbiased is a kind of bias that I call techno chauvinism, right? It's the idea that technology is superior. So what you should think about is you should think about what is the right tool for the task.

Meredith: Sometimes the right tool for the task is a computer and sometimes the right tool for the task as a human being. And one is not better than the other. So AI in image manipulation and image recognition in real estate is fantastic. Uh, there are, uh, all kinds of interesting things you can do digitally with, uh, digital staging or, uh, you know, that thing where you can use, uh, you can use a drone to kind of map out the whole house and do the photos and turn them into a floor plan, uh, that is probably using AI. And that's a really great use of AI, you know, having an automatically generated floor plan. Terrific. Right? It helps you to, uh, you know, it helps you to enhance your listing. It helps potential buyers to understand the footprint of the property better. It's fantastic. But if you're going to use a computer to make a social decision, like who gets a loan or who should be a, don't do it, run screaming in the opposite direction.

Emily: So fair to say that it can be good to use AI to evaluate the built environment, but not a good idea to use it when it comes to the people. Give us some examples of where that's gone very wrong. You're telling them not to use it on tenant screenings, but what other examples can you give me of where AI has had such bias that it's clear that it was not a good idea?

Meredith: So the classic example is a investigation that was first done by Julia Angwin, uh, formerly at ProPublica. Uh, she now runs The Markup, which is an investigative journalism outlet. And this investigation was called machine bias. In it, Julia Angwin looked into the case of a recidivism algorithm that was being used by judges to evaluate whether or not people who are arrested would re-offend after, uh, after the current arrest. And it turns out that judges were using this algorithm to generate a risk score, a risk of re-offending and

they were using that to factor into, uh, bail and sentencing decisions. Well, it turns out that this algorithm was biased against black people. It favored white people, and it was biased against black people. And mathematically, there was no way to make this algorithm more fair. People were really invested in the idea that this algorithm was more fair, that it was going to be better than a judge. But the problem is that there was bias beaked into the very DNA of the algorithm. So the algorithm was trained on data about the real world and what it did was it reproduced the conditions in the real world. This is how all machine learning algorithms work. What we do is we take a whole bunch of data, uh, historical data, and we feed it into the computer and we say, all right, make, what's called a model based on this data. And the model will then predict a certain value. So people were using it to predict who was going to re-offend, who was going to commit another crime. Well, when we look at the real world, the problems are immediately apparent. Uh, we have had decades of over-policing of black neighborhoods of poor neighborhoods. And what the model was doing was it was reflecting what it saw in the data, right? It saw that more black people were being arrested. Not that more black people were committing crimes because especially with drug crimes, black people and white people use drugs at the same rate, committed drug offenses at the same rate, but there's a big difference in policing and who gets arrested and who gets sentenced. Right? So when we take this over into real estate, uh, we can think about what are the problems that we know that exist in the real estate market. And the big one, I think, is residential segregation, right? So if we were to use existing data to decide who gets a home loan, or who is, uh, who is appropriate to live in a particular neighborhood, and we fed the data into the computer and told the computer that this is the way that we want, uh, want things to look, we would just be reproducing patterns of residential segregation.

Emily: Nobody wants it. That's correct. And those are the things that we're trying to tackle. But as you're saying this, I'm thinking the math is the math, right. But what has to change are the factors that are impacting the formulas, because if the factors are weighted, then you're immediately perpetuating the same bias over and over again, because the math is the math. So how do, how do we build smart technology that allows us to have an awareness of when the factors need to be weighted differently or what, what environmental factors would be better to include in the formula, as opposed to those that have that inherent bias baked into them? How do we build better technology so that we get the efficiency, but we overcome the math, reflecting the bias that exists in these systemic issues.

Meredith: Well, there's a saying called garbage in garbage out, right? And so if we're feeding these systems with biased data, then that's what they're going to output. And I mean, that's how they work. It's a machine and there isn't really a way to do it differently. Yeah.

Emily: But the humans are biased too, right? I mean, the humans are biased. It's garbage in garbage, in garbage out with the machine as well. But there has to be a way to split the difference in meaning in the middle. So that the data that the machines are manipulating is diluted has changed, is altered in such a way that it overcomes that victim bias. Right.

Meredith: Well, I think this is why I like to use the frame of what is the right tool for the task, right? So we're not ever going to get to some kind of digital utopia where every single listing is online in exactly the same way. And then every single person puts in their data in exactly the same manner. And we can make some kind of fair and objective decision between individuals because decisions around real estate around finances are actually social decisions, right? So we run into a lot of problems when we use technology, when we use math to make social. So we need to dial it back and say, okay, is this a mathematical decision or is this a social decision? And if it is a social decision, then let's be cautious about the degree to which we use math in order to not replicate centuries of, uh, historical inequalities.

Emily: Is there a way to hybrid that though? Is there a way that we can leverage the value of the efficiency of the math, but with some human oversight, you know, we've heard of technology where there are ethics boards, for instance, that might oversee the ways in which the math is perpetuating bias or perpetuating areas of concern is can we do both?

Meredith: This is a good question. Sometimes you can, sometimes you can't, it depends on the context, uh, just putting an ethics board in place, doesn't actually do anything. You can't just hire a bunch of people and not empower them to make any changes and, and just kind of use it as window dressing. Yeah. We'll use the term ethics washing, uh, which I think is a terrible term, but, uh, it, it gives you the sense that yeah, there are ethics boards that are just a front so that, uh, so the companies look like they're doing the right thing and then they're actually doing the wrong thing in the background. I would say that, uh, one thing that people can think about is when you, as REALTOR® as somebody in the real estate industry are evaluating software, you should think about what are the social decisions that are being made by the software. What are the social decisions that you're trying to, uh, you're trying to kind of use the computer as an intervention and is it appropriate to use that? And is this vendor somebody who is going and proactively looking at what are the ethical issues inside their software? Because most people are not. I mean, there are a couple of vendors out there who are, and bless them. And, uh, that is great. That is a step in the right direction. Uh, but you are opening yourself up to legal liability. Like you are responsible for the decisions made by the software supplied by your vendors. So you really need to know what's going on under the hood. And if there's something that opens you up to legal liability, I wouldn't use it.

Emily: Yeah, no. I mean, you're really speaking to the power of people in positions where they belong, which for realtors is an especially strong and, and passionate, um, perspective. Given, given we believe that there's still a place agents play a role in that direct person to person interaction, as it relates to a real estate transaction technology plays a role, also your call for agents and my members to be careful about the technology that they use, because it has this, um, potential, uh, bias built-in is an important one. How, you know, it can be hard for someone to understand that who is not a technologist, what sorts of questions would you encourage them to ask? Or what, what should they want to know as they're trying to safeguard themselves against using technology that might not be doing them any favors.

Meredith: So I would say don't get in over your head. Um, most people are familiar now with using electronic signatures. Okay, great. Start small with something like electronic signatures and then scale up from there. Don't try and do all the technology at once. Make sure that you know what you're doing, that you have trusted advisors. Uh, we are also no longer in the kind of world where you can just hire, uh, hire a kid to, uh, to do your technology for you. I mean, that definitely works when you're having problems with the social media on your phone. Like definitely ask a kid to deal with the social media on your phone, but when it comes to enterprise software that is going to, you know, help manage, uh, tenant issues or help screen tenants really be very, very cautious and educate yourself and know what you're getting into. And you should know the legal liability better than your vendor.

Emily: And you're speaking to this frequently now with regards to rental tenant issues, property management, that makes a lot of sense to me because there are some real, just there's real discernment used in, in the ways in which you process the federal requirements as you place tenants in properties that you manage for other people. Um, something else that comes to mind for me is that agents are referring out their mortgage business, but should be aware of what processes, what technology their lender partners use. So that they've also got awareness of where these same types of issues might occur with an external partner that the referring out. Just pays to know, you know, who your people are working with, what, how, what their process is and understand their business enough, that you can judge whether or not they're going to get you in hot water.

Meredith: Absolutely. Absolutely. It's a great, great summary.

Emily: Great. I want to switch gears a little bit. We are in an insane housing market across the country, but especially in every major urban market, really, just totally, almost skewed data because it's such extreme circumstances. The way that the interest rates are are right now, the, the demand that has been driven, the amount of cash people have socked away through the pandemic for those who are in a position to be able to do. So, I need to help my members think about data like a data journalist does, and in the same way that a technologist might, what tips do you have for them with regards to how they deliver this extreme and sort of quickly moving data back to their consumer clients?

Meredith: Oh, that's a good question. I would say that it's important to be aware of the lag inside the data systems. For example, when a bank runs comps in a neighborhood, the comps go back X number of years, and with the insanity of the market right now, uh, what you know about the value of a property or in your neighborhood might be out of sync with what the data says. And so it's important to know what the data is, what the calculation is. Um, so is the bank looking at the past five years or are they looking at the comparable values, uh, over the past year, um, and be able to negotiate, uh, even when the data says something that is contrary to reality?

Emily: Yeah. That's, yeah, that's definitely consistent with the position that we're in, in the market where, I mean, traditionally we would never encourage a week over week, look back, but as, as high and volatile as the swings have been, I think you're having to

contextualize the data in a different way than we have before. What else would you tell them?

Meredith: I would say definitely integrate digital tools, but again, slowly people, people are looking online for properties, make sure that everything is filled out the right way. The system, the computer systems are pretty dumb. They're, uh, they're much dumber than you are, right? So instead of feeling intimidated by them, just understand them as you know, this is a set of forms. Uh, most computer systems are just replicating paper forms, and you were great at the era of paper forms. So, the era of computer based forms, it's pretty much the same thing. It's just dressed up in this like unbelievably confusing and sometimes unnecessarily complicated interface.

Emily: It's just got a big shell around it, right?

Meredith: Yeah. So everything that's going on inside the computer is just reproducing existing bureaucracies. And that's a really good perspective that you can take from data journalists. Right? So as data journalists, one of the things we do is we start with what was the paper process, right? Like back in the day, when you go to the post office to pick up forms, right? Like you used to pick up tax forms at the post office. Right. I mean, I barely remember anymore what, what we used to do.

Emily: I know we've blocked out those memories.

Meredith: But that's what you did. And so every time have a piece of paper where you enter data into a form, well, that's been reproduced. Okay. Well, let's think about what are the pieces of data? Where do they get registered inside the computer? And what are the calculations that happen based on the things that people put into those forms?

Emily: Yeah. That's great advice.

Meredith: Yeah. Oh, I was going to tell a story about kindergartners, actually.

Emily: I would love that. Go for it.

Meredith: So I know somebody who teaches kindergarten, he does this activity with his kindergartners where every Monday they go around and they count the pockets in the room, which I think is just the cutest thing. Because little kids love pockets. They think that pockets are like mysterious and amazing. And you can put interesting stuff like wood chips and rocks into your pockets. And so then there's these two little kindergartners who are responsible for the Monday counting of the pockets and they have a clipboard and they make tally marks. And this is one of the ways that they learn to count. Right? And on the wall of the kindergarten, they have a big tally of how many pockets there were every Monday. So cutest thing you can possibly imagine, but I think about this little kindergarten pocket data collectors, and this is actually how all data gets collected in the world. It's people going around with clipboards or the electronic equivalent and counting things, right? So some days were more accurate than the kindergartners and some days were not. Yeah. Keep this in mind when you're thinking

about data. It's made by people it's socially constructed. It's people writing things down. And so there are a lot of problems. So just be aware that there are problems be aware that there are problems with what's going on in inside the computer. There's discrimination. Just don't imagine that the computer or the data is more magic,

Emily: Fair to say too, that some, some data metrics aren't quite as obvious as pockets as well. Some, some hide their, their stats a little deeper than that.

Meredith: Yes. If only it were all quite as obvious as pockets.

Emily: With the reckoning that I think our country's had overall and will continue to have with regards to how we change the systems that have led us to where we are today, especially as it relates to anti-racism what technology trends might we see that would continue to evolve to meet our diversity, equity and inclusion goals, um, organizationally within our industry, but also just overall at large,

Meredith: I think that this is going to be a, an individual effort and it's going to be a policy effort and a corporate effort. Uh, so I'm actually writing a new book about this, um, about how do we make anti-racist technology. I love it. I'm very excited about it. Uh, so I don't have answer totally worked out yet, but I will, by the time the book keep us posted on that, uh, I'll have to come back and report it. So you can think about technology as something made by people. And so you can think about the points at which we can intervene, right? So in the process of creating the software from scratch, uh, we can make software that deliberately does not, uh, reproduce existing social inequality. Uh, we can make software that does not reproduce racist housing policy. Uh, we can intervene at the point of the testing of the software. Most people are not doing enough testing software testers, QA people are fantastic. They're very detail oriented and they are ready to do the testing. It's just that companies need to invest more in testing. Okay. So you can test for it. Is this software going to, uh, privilege white people over black people? Is it going to say that disabled people are not good tenants and able-bodied people are better tenants, uh, you know, all the existing kinds of inequality, racism, sexism, ageism, all the isms. You can look for those in the testing process. We can also be more discerning consumers. So before you sign an enterprise software contract, ask your vendors to prove that they've done an audit for algorithmic accountability purposes, right. Demand to see the data and to see the outcome. And, uh, you know, I'm sure we can do something at the level of contracts to make sure that, uh, that customers are not held liable. And then on the personal level, uh, we can choose not to use technology that is bad, right. I'm really heartened by something that's happening in the education, uh, in the ed tech world, where there is software called Proctorio, uh, which is a crazy name. And, uh, it was software that was allegedly for remote proctoring of tests, but everybody hated it. Uh, it did not recognize people with dark skin. It was unnecessary surveillance. Uh, it was terrible. And so many, many, uh, colleges and universities are saying now, no, we're not going to use the software. Right. So that's, that's a step in the right direction. We can say, we're not going to use this technology that stinks. I know that during the pandemic, we are looking for absolutely anything that's going to deliver us from some of the pain of, you know, pandemic, everything.

Emily: Yeah. Of doing this all day.

Meredith: Right, right, right. Like, I know we're all suffering. I know it's really tempting to say, okay, this technology is going to deliver me from this, but it's really not. Yeah.

Emily: Well, Meredith I appreciate that. You are so focused on, on identifying how human technology and data really is. It's, it's, that's a new twist. I think on the way that we think about technology enabling our lives. And, um, and I know that that our agents will value that, but given that there is a very human element to that. There's a very human element to this podcast, too, in which we go through a rapid round of really just fun questions. You ready for them?

Meredith: Bring it on.

Emily: Okay. Who is your favorite hero or She-ro?

Meredith: Joy Buolamwini, who is the star of the new documentary Coded bias. Uh, Joy is a, uh, a friend, a colleague. She is a pioneer in getting people to understand that facial recognition technology is racist and should not be used.

Emily: Awesome. Uh, finish this sentence. The world needs more

Meredith: Awareness. That technology is not the highest and best solution.

Emily: Oh, I love that. And what is your most needed work from home or quarantine item?

Meredith: A dog.

Emily: What kind of dog?

Meredith: I actually just got a new dog. He is a miniature poodle and he is just the brightest spot of quarantine for me.

Emily: I love it. Same, same over here, a proud Frenchie owner. So thanks for that. Well, Meredith, thank you so much for spending time with us today. Your insight is really helpful in understanding what we need to continue to do as we look for opportunities to, um, you know, help, help do our part to correct things that have not been done correctly in the past.

Meredith: It was so great speaking with you. Thanks very much.

Emily: Thanks for tuning in. Like what you hear, let's continue this conversation. Give us some love by leaving us a review on iTunes and let your friends know about this show by sharing this episode on social media. You can also follow along and tag me @EmChenevert. That's E M Chenevert. Until next time.