Changemakers Podcast episode 10 transcript – “Equal AI With Miriam Vogel”

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Hosts Omar Abbosh, will.i.am
Guest Miriam Vogel, President & CEO, Equal AI

Omar Abbosh

Hello, my name is Omar Abbosh, and I am the Corporate Vice President of Industry Solutions at Microsoft.

will.i.am

And I’m will.i.am, entrepreneur, philanthropist, musician and producer, and my mother’s son.

And this is Changemakers.

Omar

There are a lot of people around the world driving change that impacts society. In this series, we’ll share stories of transformation directly from the leaders themselves who made the change. We'll talk about their obstacles, their triumphs, their learnings, and how technology has accelerated their mission.

Will

Artificial intelligence is transforming society in a major, major way - from autonomous cars to predicting the development of diseases. It has the power to make our lives amazing. But as AI becomes increasingly more important, tech companies have had to face the harsh reality that many algorithms carry unconscious bias towards minority groups based on race and gender.

Omar, I'm excited to talk about this subject because of the work that I've done in this subject. AI is a very loose term because there's so many different types of AIs. I've worked in natural language understanding, natural language processing. I have a robotics program where we serve 11,000 students in Los
Angeles. I started 11 years ago with just 65 kids and we grew that activity. We've sent kids to Brown, to Dartmouth, to Stanford, because it's super important to prepare kids for this autonomous tomorrow, especially when people that come from the communities that I come from are the ones that are going to get impacted the most when there's no more bus drivers, when there's no more truck drivers, when there's no more delivery drivers, when there's no people working at the cashier because there's autonomous everything.

So this is a very deep, personal subject for me. I'm excited about AI because I also love technology and the growth of it, but without practices, without regulations, as far as data privacy and algorithmic biases, like for example, I'm an African-American dude - I go to the bathroom, I have to show the white of my hand on some of those faucets, because the sensor that detects hand is based on what they call the pale male algorithm. 'Pale male' meaning pale because the guys that are coding and writing the algorithm, and training the data, unfortunately, were not people of my skin complexion. So, it's a very, very important subject, touchy subject, exciting subject. And I'm so, so, so happy that we're talking about this today.

Omar

I think you teed it up beautifully, Will, and honestly, if you'd like the optimism about how much good AI can do in the world. I've seen it being applied, supporting surgeons and finding tumors. I've seen it in finding new molecules that can help humanity. We've seen it in manufacturing for quality detection processes. There are so many things that can be used in a good way, but as a society, I'm not sure that we're ready. And I think we must have a real conversation about what this could really be. And, you know, people will talk about things like lethal autonomous weapons, and we better talk about that before it's really, really here and at scale. And so I agree with you. This is a giant topic.

Will

It's going to take a focus effort to remove biases from AI to ensure that all genders, races and economic classes benefit from the advancements in technology. And today we are joined by Miriam Vogel, the CEO of equal AI, whose mission is to remove unconscious bias from artificial intelligence.

Welcome Miriam.

Miriam Vogel

Thank you, guys. It's great to join you.
Omar: Welcome Miriam welcome. You've been president and CEO since 2018. What led you to taking on this initiative?

Miriam: Well, I came here through an unconventional path. I came to equal AI because I had been working in the cross section of technology and bias. And so I was so fortunate that the founders of equal AI understood that we wanted to take a multi-stakeholder approach to addressing bias in AI.

We wanted to invite people into the conversation who had not participated previously. And so I took my experience as a lawyer - understanding what technology was and where its limits are. I took my experience working in the bias policy space. So, I led president Obama’s equal pay task force, and then had the privilege of going back to the justice department under the leadership of Sally Yates, who was then the Deputy Attorney General creating implicit bias training for federal law enforcement, because she saw the through line that these were both areas where we had bias that were impacting and creating negative outcomes in different spaces, where there could be so much opportunity, where if we did it right and address the bias we could create so much more justice. And likewise with equal AI, we look at this as bias in AI as an age old issue in a new medium of artificial intelligence, which requires a multi-stakeholder approach where we have lawyers, policymakers, computer scientists, philosophers - everyone plays a role in making sure that we get AI to where it should be.

Omar: You say everyone, everyone has unconscious bias. I’d love for you to talk a little bit about that. So something we're all a bit guilty of and with AI it can take on a different, more drastic scale with potential impact on lots of people. Can you explain a little bit the main reason why artificial intelligence has such a diversity problem?

Miriam: Absolutely. An algorithm is really a reflection of ourselves and our society. An algorithm, we think of as math, but what it really is, is an opinion. And it's built on an opinion of first of all, what problem do you want to solve? So you're going to bring your bias into who has the privilege to use AI to solve for that problem.

How are you going to go about solving it? What does the ideal solution look like? So we think of the bias in AI as something that can be a problem embedded throughout the AI lifecycle. I will also say we are optimistic and we
think each of those human touch points where bias can embed is also an opportunity for us to identify and reduce that problem of bias in AI.

So whether it's thinking through what the AI system will solve in feeding the data - I think a lot of people have addressed this problem of the data sources that we've been using, where it's based on historical biases baked into these data sets that are now being trained. As you both know, it requires massive amounts of data to train an algorithm how to do its job, but it's very challenging if not impossible to find these datasets at that scale that don't have embedded biases. And so, as I said, in each of these human touch points where it's envisioning the algorithm, building, designing, and testing is another key area of opportunity for us to identify the bias. We can understand where there's been bias embedded. It requires diversity on teams to ask these questions and understand where it's embedding. And then we can really create more powerful, effective AI if we do this right.

**Will**

I have a question, how you address data biases, because if the people that are writing the algorithms don't understand the conditions of the communities that these algorithms are going to be in...Let's go just the very, very basic, a bathroom, because the folks that built the algorithms for the sensor to identify a hand were not people of color, the sensor and the algorithm did not see the people's hands that are of darker hue.

So when they deployed the technology into the world, black people had to show the white of their hands for their hands to be seen. How do you invest in people from the community to write algorithms, to solve problems for their communities themselves?

**Miriam**

Such a great question, Will, and I love how you're looking at all the various pieces where biases do embed and the sink example is spot on. There are so many examples we see in our society. You can look at how artificial intelligence has been named, why is it the electronic assistance that we bark orders at have female names, but the smart AI, the deep thinking AI are Watson and Einstein. We see examples outside of AI as well. Like you said, with the sink example, we know that women were more likely, 72% more likely to be injured in a car accident, whereas they are more likely to be a safe driver. If you look at the same datasets - well, it turns out that until recently when regulation stepped in, the airbags designed to protect them, drivers and passengers were designed.
Will

Were men.

Miriam

Exactly. They were designed for the people designing the airbag. No one intended harm, but in the airbag example, it became a life or death situation where you were more likely to be injured and die based on your gender, because it wasn't designed for your use. Companies are in a position where they need to, if they care about building AI appropriately, safely, effectively - they need to work with organizations like yours and other great organizations out there that are making sure we have a more diverse pipeline. There's just no way we can get to where we need to with AI otherwise. We can only imagine as broadly as our experience allows. And if we do not have the broadest sense of diversity of people working throughout the AI life cycle, we will not have effective AI.

If you're a company, making sure you not only hire with diversity in mind, but retention has to be top of mind. If you're a company, making sure you're building an inclusive environment where people want to stay and help you build better products. A lot of that is also building trust. And so at Equal AI, our work really focuses on building responsible AI. A lot of what that comes down to is building trust. It starts internally with your systems and your processes. Are people staying? Are they believing in you? Do they trust what you’re doing? Because down the line, the consumer will feel that too, your consumers will know if you built in an environment of trust and inclusivity. And that I think is the only way we get to AI that is able to be trusted, AI that is responsible.

Will.i.am

Say for example, us three, wanted to create a, a combustible engine car company, and we wanted a fleet of a million cars to go out on the street and we had a great marketing budget to market our vehicle against other car companies. To get your car out on the streets, you have to have emission check, you have to have an airbag check, you have to have all these different types of checks, so your car is a safe car.

But for some reason, when it comes to deploying AI, where they're predicting modules, that now insurance companies are not insuring mental health because the algorithm shows that there's going to be more mental health down the line, but there's no regulations and governance on deploying products that interface with people that are just as detrimental as cars and computers.

Why can't we have the same level of governance and safety precautions?
Will: Ok, I’m cutting it off (laughter).

Miriam: You’re absolutely right. We need to get there. There are laws currently on the books that do apply to AI, and it’s just not clear to everyone involved that they are applicable. I think we’ll see in the coming years - certainly the EU has stepped up its efforts to ensure that AI is regulated; In the US we see bills that are starting to pop up state level, federal level, et cetera.

We have a Federal advisory committee, mandated by Congress to help advise what our AI leadership should look like; The national Institute of standards and technology is following its congressional mandate to create an AI risk management framework advising what are best practices; Equal AI, really tries to drive this point home, helping companies understand what responsible governance means when it comes to AI, what best practices look like at this time where it’s not a hundred percent clear, but also smart companies are doing this because they understand that that litigation is coming.

So on the one hand, it is the right thing to do. You’re building trust with your employees and your consumer if you’re building AI responsibly, but you’re also being savvy to avoid the litigation that will be coming down the road. So we have civil rights laws in place, we have the Fair Credit Reporting Act, Equal Credit Opportunity Act. These laws will be applied to AI. Government has an important role to play here. And to your earlier point about the pipeline, I would hope that companies would do more to support the pipeline because they are the beneficiaries down the road- when they have a broader workforce, they need more hands on deck.

We cannot win in AI, unless we have more AI built by and for a broader cross section of the population, period. And companies have an important role to play in that, government has an important role to play in that - making sure that it is more accessible to students around the country of all backgrounds, of all geographies, no matter their gender, race, we need them understanding what AI is. You don't need everyone to be a computer programmer for sure, but you need them to be able to participate in the AI economy that we’re heading into.

Omar: Wow. I mean, Miriam, what you just went through was a terrifying, complex array of legal requirements that companies are going to be subject to more and more. I mean, honestly, it sounded harder than what we’ve seen so far on data privacy, and personal data regulations. So you’ve given us tons to think about there. But I know that Equal AI is working to help companies and you’ve created
a checklist for companies and how to evaluate their own data and identify bias. Give us some examples of the sorts of questions that companies ought to be asking themselves.

Miriam

We really want to help companies. We don't want them to be in the situation where there's litigation down the road, because that means people have been harmed, that means that the AI has not been inclusive and as effective as it can be.

So, we really see ourselves at this important fork in the road where we can make AI more inclusive. We also help companies understand first and foremost, most companies are now AI companies. They don't know that going into it. They think they're building a product or providing insurance or some other service when really they're now using AI in pivotal ways, whether it's their hiring, financial determinations, healthcare allocations, et cetera.

So, first of all, it's level setting - are you an AI company? Are you using it in pivotal ways? And then, trying to find ways to support them. So, as you said, we have a checklist on our website where they can start asking the basic questions of where could there be gaps and liabilities. Have you tested to make sure that your AI systems are ADA accessible, ADA compliant?

When you're talking about speech recognition, have you tested to make sure that anybody using your speech technology service can be heard. You know, we know that facial recognition has all sorts of challenges in identifying faces of different skin tones. Well, with speech, we have those problems and more because it's been trained with certain dialects and tones.

If you have a different tone, it just might not hear you; If you have a speech impediment, you are probably going to have challenges in using that technology. So there are some basic questions to help you get started. We have a pledge companies can take so that they can say publicly - we care about being a responsible company and we're going to look at REI to make sure that we are not discriminating through bias in our AI systems that's unconsciously embedded there. We have a program for senior executives, we're building a community. There are senior executives like you, Omar, who care about responsible AI and want to work together to understand at this time when there's not international consensus on regulations, what those best practices are. So, ours and many organizations out there are starting to ramp up so that you can have partners in this effort if you want to do it right.
When you talk to these big companies, they know the problem, and many vow to address it, but there seems to be a gap between meaningful action and intention. How does Equal AI help close these gaps?

Such a great question. You know the pledge I just mentioned, the Equal AI pledge was born during Black Lives Matter, when so many companies were saying - we care about ending discrimination, but we wanted to give a more tangible promise and commitment that they could make to actually having impact.

And so we very quickly worked with several different companies and general counsels to see how we could make a statement that was feasible, that would not take years to sign off on, but would have impact. And so, for instance, that pledge has three steps that seem simple. But, as you both know, from working at AI companies, they're not always so simple.

And the first is - commit that you will look for bias in your AI systems, and if you're wondering where to limit bias, because as you said at the forefront, we all have bias that pops up in so many different ways: look at legal compliance. Just say you will commit to looking for bias and discrimination against protected classes...basic legal compliance, for starters.

And then second commit to taking action, when you find harm.

Third, and here's the powerful piece, the important lever that I'm really excited about: ask your partners and vendors if they're doing the same. Again, this is good, basic compliance, making sure that any AI you're acquiring or deploying using in any way has been tested for basic legal compliance and ensuring that it's not discriminating when you're using it.

But it's also this force multiplier where if we can get more buyers to ensure that the vendors are testing for these kinds of bias and discrimination, we can really create a more inclusive AI world.

If I think of the most diverse, inclusive company - I'm not talking about who are owners, but just as far as the participants and the employees and the folks that work in this company - and that's the NFL. The NFL has black coaches now and, and the field is diverse, a bunch of different nationalities and the football outside of America, super diverse. There's people from all parts of Africa, people from central and south America, SUPER diverse. And if I want to take American football and global football, and I see how much money they have as industries they don't come close to Facebook, they don't come close to Microsoft. but
American football makes sure that every high school, there's a football field there. And my sister's never going to play for the Falcons. It's only for one gender and one company benefits from that football field in every single high school.

There is a draft on television to let people know who's going from what high school, to what college. And when they graduate college, there's a TV show for them to tell them what company they're going to play for. And that one industry is called the NFL and the field is filled with diversity. It's beautiful, the inclusion of the players, and now the coaches and soon the owners. And if I see the problem that we have with diversity and inclusion and data bias, it's the tech company's fault because there's not a freaking computer science program in every single high school.

And when a kid graduates high school, they're not celebrating them to tell them what college you're going to. It's invisible. And when they graduate college to go to work at Microsoft or Google or Facebook, it's also invisible. And no kid from the inner cities, like yo I want to be like Samantha, she just graduated freaking Stanford and is now working at Google or working at Microsoft, it's all invisible activity. And then we're here hindsight, like we got data biases. Oh, duh!

You're not competing with the NFL. You're not competing with the NBA. If you're going to inspire kids, you've got to inspire them where they are, at the moment that they even dream of who they want to become, and you've got to let them know that they are needed in solving tomorrow's technical complexities, This is the most urgent thing that humanity has ever been a part of. And the NFL is beating every single technology company, as far as what kids want to be from the inner city.

**Omar**

So Will, you're being very provocative and actually what Miriam said before you was super provocative as well. The AI supply chain. So, as you all know that developers today, like programmers today, there's millions of them and they use these repositories, these libraries with hundreds of millions of bits of pre-written code, including algorithms for AI.

And those have got biases in them, probably. So to build programs, you've got to be aware of the supply chain that you're building on. And so as you think about that, Miriam, which tech companies do you think get it right?
Miriam

You know, I think that this has to be an ongoing answer because as you know, Omar, AI is constantly iterating.

I think what you see today, some companies have tested appropriately for their AI, some haven’t, what we really need to look at is taking a step back at who has a responsible AI governance system in place. Who has been smart enough to know that AI is constantly iterating? AI will have biases embedded in them and a lot of those will result in discriminatory outcomes. Smart companies are looking at their values. They all have mission statements, but what they need to do, what the smart companies are doing are making sure that their AI is aligned with their mission statements and their values. And they’re doing that by putting together a plan being public internally about what that plan is, making sure there’s accountability, who in the C-suite is looking out to make sure that you are constantly checking your AI to make sure it’s consistent with the plan that you’ve set out to ensure that it is consistent with your values.

Who do you contact? When there’s a problem, and Microsoft, I know you do have this plan in place and it’s really well-designed because it’s close to the product. and you have training all around your program so that people know - who do I contact if there’s a problem, what should I be on the lookout for? What is a problem? What is standard? You need to make these basic standard definitions so people know internally -

A. That you care about it,

B. What to do, if there’s a problem and

C. That there’s accountability, that someone actually cares...they won’t get in trouble for reporting a problem, that it’s welcome and that you’re inviting them as a partner in this effort to look out for discrimination where it can be embedded in your systems, because you know it is. It’s just a matter of getting your community on board to help you identify it and trust you that you both care about it and will do something about it.

Omar

So companies with great governance, with great leadership, bake their values and aspirations into their processes and how they run the place, you know, can do a better job. But what if we don’t do a good job? What if the AI continues to be biased? What are the implications, you know, to our society? What are the legal implications of companies carry on, you know, building AI that isn’t good enough.
Miriam

So Omar that's exactly what keeps me up at night. I fear that too many companies will wait for this bad outcome and it will be coming. We see AI being used in all ways. It is everywhere now, in useful small ways, you know, turning on our phone with our facial recognition opportunities to really important, powerful ways, in, for instance, science and medicine. My nightmare scenario is the false negative where the person talking to the patient thinks that they are negative for cancer when they actually are positive, they do have indications of cancer, but they don't know because the algorithm was built for and the data sets were trained on demographics that did not include that patient. So there are, for instance, a black female patient talking to the physician. The physician doesn’t know that the algorithmic recommendation that this patient has a low chance of having cancer is actually based on the white male data upon which it was built.

So, these nightmare scenarios are going to play out. What I hope is that we can get to as many companies and senior executives, individuals as possible, getting the public to start asking questions: Have you tested to make sure this AI is safe for me, that it's built for me? Getting doctors to understand that an algorithm is not right just because it's computer science, we have an implicit bias towards AI where too many people think it's right, because it's an algorithm. Well, it's right for exactly which person it was designed to be used for in the way specifically it was designed to be used, but not outside of that. So let's be clear about for whom and for what it was designed for.

I think AI will become more and more powerful, but there is no way that it can provide the nightmare scenario of the alien takeover, because at the end of the day, your AI systems can understand how to stop the spam in your mail, but it can't understand why you want to reduce spam. In the same way we can help make sure that it can better recognize civilians and targets and that sort of thing but it can't understand why you're making that distinction. It can't understand iterations along the way, new developments it's seeing without us constantly ensuring there's a human in the loop, all along the way with AI.

Omar

Miriam, thank you so much for being with us. It's super insightful, super thought provoking, and I'm sure our listeners have enjoyed it as well.

Miriam

Thank you both for bringing light to this issue and for having me on.
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<tr>
<th>Will</th>
<th>As you can tell, I'm super passionate about this, this subject with the work that I do in my inner city. I salute you. Thank you so much for the work you do.</th>
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<tr>
<td>Omar</td>
<td>A hundred percent, and for those of you who liked this conversation, check out Miriam's own podcast - ‘In AI, We Trust’, you'll learn a lot more. Take care, everyone.</td>
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<tr>
<td>Will</td>
<td>That was an awesome conversation. Heavy, insightful, inspirational, sparked a lot of questions that we didn't have time to tackle, but is Equal AI mission possible in our lifetime?</td>
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| Omar | Honestly, that was heavy, as you said, there are so many angles there and as you could hear from the richness of Miriam's descriptions, The range of things companies have to get their heads around is just enormous.  

And, so when I think about, like how do you secure that across all the world's companies that are writing software for making AI algorithms? There are hundreds of thousands of companies out there today. The really big ones, you know, maybe can afford to have teams of people who can go deep on AI ethics and AI approaches and AI governance.  

I'm not sure that applies across, you know, all the companies out there that will be using AI. So, I think therefore, the role of regulators becomes absolutely critical and they need to move faster than normal because normally they're sitting behind the innovation and that's a problem. And the role of the giant corporations like Microsoft that write a lot of the underlying platforms on which people build software becomes exceptionally critical because that's the place where people will be building all those algorithms that are out there in the wild. So is it possible? I think it's essential. |
| Will | Hmm, yeah. |
| Omar | I think it's, it's really hard.  

There's a lot of, it feels a bit sometimes like we're going to be pushing water uphill, but we have no choice. We have to do it. |
Will

I'm an optimist. And I, I think it's possible. And the reason why is that - I love automobiles. but they are regulated.

You cannot drive an F one car on the street. And the moment you do, WROOM, you get pulled over like, yo, can I see the registration and the VIN number...this is not sanctioned to be on the street.

So if we can regulate travel we should be able to do the same processes without stifling and limiting progress and innovation but making sure that making sure that communities are safe, making sure that business practices don’t compromise people's civil liberties and privacies.

Omar

All right. So we're going to, we're going to rely on the regulators and hope for them. Will, thanks a lot. It was great.

Will

Thank you.

Omar

Great, great session. Look forward to the next one.

Will

See ya soon.

[MUSIC]